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| | |
|---|-----|
| S. Bhattacharya . Linguistic Convergence in the Dravido-Munda Culture Area | 199 |
| Hans Henrich Hock : Historical Change and Synchronic Structure : The case of the Sanskrit Root Nouns..... | 215 |
| Zacharias Thundyil : The Language of the Kadars..... | 229 |
| Ray C. Dougherty : Reply to the Critics of the Bloomfieldian Counterrevolution | 249 |
| A Chandrasekhar ; The Terms Eluttu, Pulḷi and Mey in Tamil Grammar..... | 272 |
| D. M. Joshi : Morphophonemic Alternations | 278 |
| Gopala Sarana and R. M. Girji : Two Styles of Sociolinguistic Research..... | 283 |
| Manjit Bassi, Atam Singh, H. S. Gili : Linguistic Atlas of the Punjab | 294 |
| A. P. Andrews Kutty : Relative Clauses in Malayalam..... | 302 |
| Bh. Krishnamurti : Gender and Number in Proto-Dravidian..... | 328 |
| Harold Schiffman, : Intent Constructions in Dravidian..... | 351 |
| K. M. Tiwari, B. Gopinathan Nair <i>et al</i> : Comments on D. P. Pattanayak's Paper on Caste and Language..... | 361 |
| Reviews : | |
| M. A. Mehandale : A Prakrit Reader..... | 379 |
| Shivendra K. Verma : Readings for Applied Linguistics..... | 381 |
| J. D. Singh : Dialect Survey of Malayalam..... | 386 |
| M. Rama, : Descriptive Analysis of Tulu | 391 |
| Note . | |
| D. N. S. Bhat : 'Must' in Kannada..... | 398 |

DEPARTMENT OF LINGUISTICS

UNIVERSITY OF KERALA, KARIYAVATTOM, TRIVANDRUM

INDIA

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M. L. Ramesh
3/8/75

LINGUISTIC CONVERGENCE IN THE DRAVIDO-MUNDA CULTURE AREA

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If some groups of people of heterogenous origin live in one area for several centuries, or even generations, there takes place, quite imperceptibly, a considerable amount of give-and-take in their various day-to-day activities. This leads to the growth of some new agreements in their outlook of life, which we may call a common cultural core. The conservative sections may deny its existence, may even resist it; but it will be there. The growth or decay of this common core depends on many factors. These are, the opportunity, or lack of it, of social intercourse, the presence or absence of a common economic life, the presence or absence of a common tradition, history and language, the degree of internal and external hostilities, the presence or absence of a strong cohesive power within that area (i. e. a strong political power or any other cohesive force), and so forth. When the conditions favourable for the growth of this common core prevails, the size of this core gets bigger, and the situation may even lead to a partial or total absorption of the affected groups.

The emergence of this area of convergence, and the nature and extent of it, can be judged from a study of the different facets of culture of those ethnic groups. Since speech is an important part of human culture, this area can seldom remain unaffected. Perhaps language is the most convenient tool to gauge this convergence, and understand the various processes involved in it. But the rate and degree of linguistic convergences may not tally with those taking place in other regions of human culture.

It has been a favourite academic pursuit from long since to find out the size of this common core in total Indian culture amidst its heterogeneity and diversity. But this should not divert our mind from the smaller culture areas existing and thriving in different parts of

this subcontinent. The present writer has been amazed to find the high degree of standardization that has taken place in this distant Indian state of Kerala which is noted for its stratified society, its diverse topography, and which is the meeting ground of three important cultures of the world. An area study of such smaller units is likely to be very fruitful, because we can have closer look at the changing processes in such smaller, areas.

Our object here is to discuss briefly about the linguistic convergences in another area which we have called the Dravido-Munda culture area. It covers the central and eastern parts of middle India including the contiguous portions of Bengal. The existence and continuity of this culture bloc can be established also historically. We find faithful and alive descriptions of different portions of this area in Valmiki's *Ramayana* and Bana's prose classics in Sanskrit. India used to be divided into five zones, *Udicya*, *Praticya*, *Madhyadesiya*, *Pracya* and *Daksinatya* in the latter part of the Rigvedic period. It is interesting to note that in the list of ethnic groups living in the *Daksinatya* region two peoples have been mentioned whom we can easily identify now. One of them is the Andhras who speak now a Dravidian tongue, Telugu, and the other is the Śābaras who speak now a Munda tongue, Saoṛa or Soora. Here lies the genesis of our Dravido-Munda culture area. In the Puranic age this number of ancient culture zones was raised to seven, by the addition of the Vindhya-prṣṭha region which vaguely corresponds to our Dravido-Munda area, and the Himalayan region. It is not possible to identify all the groups of people listed under each of these seven *janapadas*. But all thesels are made of names which are either of Sanskritic, or of non sanskritic, origin. It probably indicates that these janapadas had a good number of people of non-Aryan extraction among the population.

The Nisada and Pulinda (= Kulinda) were two such people mentioned in the Pracya and the Vindhya-prṣṭha regions. The former of the two, the Nisada, were much more widely spread, and were said to be living also in the *Daksinatya* region. The Vedic Aryans at a later stage as is quite understandable, knew of only two broad divisions of Indian population, the Aryans and the non-Aryans, as the Indian population in the Muhammedan period in India were broadly divided into the Moslems and the non-Moslems. This might have been the reason why quite a few general names of non-Aryan people got currency in the Classical Sanskrit period, while in the previous period, literature had recorded a greater number of ethnic names indicating particular tribes or groups of people.

Here we are very much tempted to follow up the line of research initiated by J. Przyluski in the 1930-s in classifying the tribal names from their endings. If this argument has any validity, then we can show that masc. suffixes (sing./pl.) which are found to be used for making masc. nouns and group-names in the present-day Dravidian and Munda languages have been used indiscriminately in the names of modern speakers of Dravidian and Munda. Take for example *-r*, the Dravidian masc. pl. suffix, preceded or followed by an enunciative vowel, used quite frequently also to mark caste or tribal names, will be found also in the names of tribes who speak Munda. Thus, *Āndh-ra*, also *Śaba-ra*. Another interesting vestigial suffix is *-da/-nda* to be found in *Nisa-da*, *Puli-nda* *Kuli-nda*, which is found also in the name of the modern Drav. tribe *Kōn-da* (pronounced *Kōndho* in Oriya); a variant form of it is *Kōdu*, derived from *kō* 'mountain', DED 1811. The tribal name, *Gond*, (i. e. *goo-nd*) may be another variant form of *Koo-nd*, although the *Gond* are a different Drav. speaking group living now far away from the *Kondh* area. But cf. their generic name, *Kōi-t-or*. This masc. *-d* has been preserved in a few *Parji* words; e. g. *tole-d* 'brother, younger brother', DED 2939, *Ta. tōlan*, etc. The corresponding suffix in many modern Drav. speeches including *Ollari*, is *-ṇḍ*. Thus *Ta. ayan*, *Te. vāḍu*, *Pa. ōd*, *Ollari ōṇḍ*, etc. 'he', DED 1. Ramaprasad Chanda in his *Indo-Aryan Races* (1916) has shown that the physical description of the *Nisadas* to be found in the *Puranas* tallies with the physical features of the *Mundas* who speak *Mundari*, a Munda tongue, and the *Oraons* who speak a Drav. tongue, *Kūrukḥ*; both of them live in the *Ranchi* district of *Bihar*.

Conversely, *-k/-g* followed by an enunciative vowel is a Munda masc. pl. suffix *par excellence*. It is used in Dravidian, but seldom alone in SD, and mostly with neuter nouns there. On the other hand, it is used in *Khasi*, and everywhere in *Munda*, excepting in the three Lower Munda languages, *Didey*, *Bonda* and *Gutob* which use *-e*, *-ne* (*n*), used also in some non-literary Drav. languages of the South and *Tulu*. The Munda pl. suffix *-k/g (+V)*, sometimes preceded by a nasal, is often found to designate tribal names belonging both to Munda and Dravidian groups. Thus, Munda: *Kor-ku*, *Koṛa-ku*, *Hōṛ-ku* (= the *Santal*), *Lebu-ki* (= the *Kharīa*), *Er-ṅga* (a section of the *Koṛowas* of M. P.), *Juaṅ-ga* (= the *Juang*), *Pareṅ-ga* (= the *Pareng*), and so forth. Dravidian: *Kannaḍi-ga*, *Koḍa-gu*, *Baḍa-ga*, *Shooli-ga*, *Tele-ṅga*, their language *Telu-gu*, *Kuuvi-ṅga* (the *Kondhs* of *Koraput*, speaking a language allied to *Kui*), *Eer-ku* (= the speakers of *Naiki* of *Chanda*); *Gorku* (= the *Nahal* < *Skt. Naahala-ka*, they speak an aberrant speech having elements from Munda, Dravidian, Indo-Aryan and an unidentifiable source, and others. Another ending

coming after names of ethnic groups is-la; e. g. Bhila la (a primitive section of the Bhils), Munḍa-la (var. form of Munda; the name of their language is Munḍari); cf. also Skt. Caṇḍaa-la 'a low-born impure group of people'. This -la/-ala reminds us of the -l pl. suffix used in some Drav. languages. As far as we know, the ethnic names quoted above, indicate the menfolk of those groups. The picture of the singular and plural markers of common nouns, kinship terms and caste names has become very much blurred both in the Dravidian and the Munda languages. We therefore wish to keep these usages in the ethnic names as a separate issue.

The idea of the existence in this region of various groups of low-born wild people subsisting on hunting and primitive foodgathering, who were known under different names in the Sanskrit literature, persisted throughout the centuries. This perhaps influenced Hodgson's thinking when he, for the first time, in the second quarter of the last century mentioned three groups of Indian languages, one of them being Tamulic, consisting of what is now called Dravidian and Munda. In 1854, Max Mueller separated Dravidian from Munda, but the idea persisted, and in 1891, Risley divided the Indian population into seven races, one of them being the Dravidian Race, which consisted of both the speakers of Dravidian and Munda. In the Census of India for 1931, B. S. Guha substituted Risley's 'Dravidian' by two terms, Mediterranean and Proto-Australoid, and his latter group consisted of speakers of Munda and those of Dravidian tongues of middle India, and some Dravidian speakers of Southwestern India.

This peculiar relationship between the Dravidians and the Mundas arising out of their pre-Aryan status, and commonness of habitat from early times, is likely to have produced a state of biculturalism among them. Some degree of bilingualism was an inevitable result of this biculturalism, which in its turn must have produced an area of linguistic agreements between these two ethnic sections in this area. The Dravidians were the more dominant section among the two, while the speakers of Munda who were mostly the tillers of the soil, playing a subservient role. But the Aryans did not allow these two sections to settle down and patch up their differences. They also appeared on the scene soon to share the area with them.

We know from our study of ancient Indian history that the Vedic Aryans conquered upto the Midland region which they called Madhyadeśa, and cleared off this area from the hostile sections of the aboriginal people who took shelter either in the hills and forests of the south or the north of it. Later the Aryans

changed their policy of confrontation with them, began to infiltrate among the driven out aboriginals in the south and the north, and gradually set up their colonies among them, and conquered their hearts with their higher spiritual aspirations, superior language and literature, and last but not the least, their nobler demeanour and superior appearance. A large number of inscriptions written in Sanskrit have been discovered in the Dravido-Munda area from early times.

This much of historical introduction has become necessary for a proper understanding of this area which we have called the Dravido-Munda culture zone. The Indo Aryan culture is the dominant element in its upper stratum, which is borne out by the fact that the aboriginals of this area are gradually becoming absorbed by them. This meeting of three cultures in this area, the Indo-Aryan, Dravidian and Munda, produced some palpable results. Firstly, some ethnic names sprang up consisting of Aryan, Dravidian and Munda groups. The Parja of Bastar and Koraput provide a good example of this cohesion and confederation. Our Census figures for the tribes of Bastar and Koraput can not be accurate and reliable as long as we are unable to sort out these three elements from the Parja population. The word *parja* is derived from Skt. *prajaa* 'subject, ryot'. The Gadba of Koraput offer another example, but in a small scale, for it constitutes only two elements, Dravidian and Munda, and belongs to the lower or earlier stratum of this culture area. The second result is the uncommon degree of language hybridization that has taken place here. We have already mentioned about the Nahali language spoken in the western border of Madhya Pradesh. LSI IV has referred to some Hybrid Dravidian languages; e. g. Bharia. In many areas Indo-Aryan is gradually absorbing the non-Aryan tongues; the language of the Bhils would provide a good example. Some of the Gondi texts published in Trench's Grammar of Gondi, Vol. II, will show that the force is still active. We need not multiply examples. The third result is the emergence of a common set of cultural and physical features, but we are not directly concerned with this aspect of convergence.

We have seen above that there are two layers present in the convergence in this area, the earlier layer represented by the convergence between the Dravidians and the Mundas. Language is perhaps the only tool that can to some extent unravel the complicated state of convergence that took place quite early in the lower stratum of this convergence. Our object here is to briefly discuss and illustrate this point.

At first, let us take an onomatopoeic root that will at once show the area of convergence and divergence not only in Dravidian and Munda, but also between Dravido-Munda and Indo-Aryan. The Root is *me/me?* 'the sound of bleating of a goat'. All the three language families spoken in the mainland of this subcontinent have used this Root, but it will be found that all of them have developed the Root into word-bases according to their own principles which show that basically these languages belong to three distinct groups. In Munda, a Root is developed in one of the following ways: (i) by the use of a Prefix, or Prefixes, sometimes followed by a secondary nasal link; (ii) by the use of Infix; (iii) by the use of Suffix; (iv) by duplication of the Root. Dravidian use only Suffix or suffixes, with or without the link sounds. Indo-Aryan, on the other hand, develops the Root with the help of (i) internal vowel-change; (ii) Suffixes; (iii) verbal Prefixes; also (iv) duplication of verbal roots. In Munda, we get the following word-bases from the above-mentioned Root *me?*: Didey *gi -mi?* *gi mi?* 'goat', Bonda, Gutob *gime?* 'id.', Korku *me-me* 'id. (when called endearingly)', Santali *mɛ-mɛ* 'goat (when speaking to children)', Parengi *ki-n-me-n*, Savara/Saora *ki-m-me*, Kharia *me-rom*, Juang, Mundari, Ho, Aṣur, Birhor *me-rom*, Santali *mɛ-rom* 'goat'. The same Root has been used in some Dravidian languages. By Dravidian, we mean here the entire Dravidian Family, and not those Drav. languages spoken now in the Dravido-Munda area alone. The convergence we are speaking about took place at a much earlier date when the distribution of the Dravidian languages was presumably not what it is now. The Drav. words are: DED 4174: Ka. *meeke* 'she-goat', mee 'the bleating of sheep or goats', Te. *mēēka*, *meeka* 'goat', Kol. Nk. *meeke*, 'id', Pa *meeva*, *meeya* 'she-goat', Ga. *meege*, etc. The Sanskrit words formed from this Root are: *me-myat* 'bleating as a goat'-RV 1.162. 2; also Skt. *me-ṣa*, *me-dhra*, *me-ndha*, etc. 'ram', *me-ka* 'goat'. The Lower Munda form, recorded from Didey, Bonda and Gutob, i. e. *me?*, seems to be nearest to Proto-Munda, and may have influenced the Drav. form *meeka*, *meege*, etc. According to Munda principles, a glottal stop can change into a velar stop, a vowel, or some other consonants.

In ancient India, a Tirthankara while passing through the dense forest of Bengal and Bihar had to face some wild tribes accompanied by their hunting dogs. He heard that they were uttering the sound *chu*, and thought [they were setting their dogs on him. This sound has actually the same value in many Indian tongues. But this is another example of an onomatopoeic Root used to form the

word-base to mean 'dog', not only in Munda, but in the entire Austroasiatic and Austronesian languages. The Root is so/su/cho/chu. The Munda forms are: Saoṛa/Savara ki-n-so-r 'male dog', ayañ sor 'bitch', Parengi ku-su, ku-son, Didey g^u-su, gu-su, Bonda gu-so?, Gutob gu-so 'dog'. DED 497 has recorded two stray Drav. forms; e. g. Ta. ucci 'dog', Ka. ucci 'a particle used in calling dogs' (cf. also DED 2241). The Prefix u- (i. e. u-cci) makes it probable that these stray Drav. forms have been influenced by Munda.

Now let us discuss some terms of material culture, a field where convergence is more natural. DED 3889 has recorded a pan-Dravidian word for 'axe' which has been recorded from South Dravidian, Central Dravidian and North Dravidian; e. g. Ta. maḷu 'axe, battle axe, etc.', Ma. maḷu 'mace, hatchet, etc.'; Go. mars 'axe', Malt. masu 'id.', etc. We have published the different words used for 'axe' in the Munda languages in our paper, 'Some Munda Etymologies'. The Lower Munda languages, Didey, Bonda and Gutob, use a term maloe maray 'axe'. It is likely that this special type of axe was borrowed by these Munda groups of people, along with the word for it, from the Dravidians.

The catching of fish is an important event in the life of primitive food-gatherers. Examine the following Munda words: Saora, ger- 'to catch fish', Mundari gira, gari, ga-na-ri 'a small round net for catching small fry', Santali ge-ne-ri 'kind of fish net', Gutob gi-ni-r 'hand-net for catching fish', etc. The use of the Infix -n(i)- for similar constructions is an important feature of Munda and Austroasiatic. Now, cf. DED 1847: Ka, goor 'to catch fish', Tu. gooru-ni, kooru-ni 'to catch fish by a hand net', goora-le 'small hand-net'. It seems that the Infix -n- (= 1) discussed above, has been suffixed in the Drav. form to suit its principles. The readers will have to consider three things here. Firstly, there is only one phonemic length in Munda, for which all Munda vowels are shown as short. Secondly, the occurrence of g- in the initial position can be explained in Drav. if these forms are treated as loans from Munda where voiced stops can occur initially. Thirdly, nouns with -n, -l have occurred in those words only in Tulu, and we will have to examine whether such a construction with -ñ/-l can be explained with the help of resources available in Dravidian. The form ger- also means 'to nibble' in Mundari, and 'to bite' in Santali. An independent development of the Munda Root mentioned above may have taken place in Drav.; cf. Gundert's *A Malayalam - English Dictionary*, 1962, p. 309, Ma. kooRi 'to nibble'. A full picture of this development will be found in DED 1869, but the important

item of meaning we have quoted above from Gundert, has not been recorded there. The fishing book is an important part of the culture complex we are discussing about. We can not discuss this point fully for not having with us here our entire Munda material. Some of the Munda forms we can recollect now are, *giṛi*?, *giḍip* 'fishing hook'. The second syllable consisting of a hard sound appears to be derived from another Munda word meaning 'thorn'. The forms grouped under DED 1254 belong to the same culture complex. Can we suggest here a convergence of forms between Munda and Dravidian, or a convergence in the process of noun-formation in the Munda and Drav. forms? The Dravidian forms under DED 1254 are: Ka. *gaala*, *gaana* 'hook. fish-hook, etc.', Tu. *gaala* 'fish-hook', Te. *gaa-laamu* 'fish-hook, etc.', Pa. (S) *geelam* 'fish-hook'. (also Ma. Gund. p. 252) *Kaalan* 'id.').

An explanatory note has become due here. In the area of agreements shown in the various forms cited in the paragraph above, vowels have too often changed from back to front, and front to back, which is a problem both in Dravidian and Munda phonologies. A variation along the front or the back series of vowels is common in Dravidian and Munda (also in Sanskrit), and has been explained with the help of another vowel (mostly *a*, a central vowel) in the following or the preceding syllable. It has been suggested that a central vowel in the vicinity can also effect this variation between the front and the back vowels in Munda. The central vowels that have been posited in Proto-Munda for this purpose are *a*, *ẽ*, *ö* *ĩ* and *ũ*. Of these vowels, only 'a' occurs now in Munda. The remaining central vowels occur in some Austroasiatic languages spoken outside India, and are represented in Khmer alphabet. Some field workers (not the present writer) have recorded the entire central series in some of the Munda languages. But the present writer finds these so-called central vowels (excepting *a*) to be extra-short neutral vowels. This is also his feeling about the centralized *ũ* and *ĩ* in South Dravidian. He has therefore suggested it recently that the presence of this extra-short vowel which was an important sound in Proto-Munda, may have caused this extra-series variation (i. e. between *i/e* and *u/o*) in an earlier stage of Munda. There are many examples of extra-series variation of vowels also in Drav. The same hypothesis is also applicable to Drav. Take for example, DED 3452, Ta. *piṇ* 'back, etc.', Ma. *puRam* 'id.'. In this case the To. form *pīn* 'afterwards', according to this hypothesis, is nearest to PD, and may have caused the variation between *-i-* and *-u-*. Many other examples in support of this hypothesis may be cited from DED, and attempts can

also be made to explain away the exceptions. But it deserves to be treated elsewhere as a separate issue. We wish only to stress here that Dravidian and Munda linguistics have many common problems, and a clue to the solution to them is welcome from either.

Different tools are used all over India for pounding grains, and squeezing out oil. The articles generally found to be made use of as the squeezer are stone, wood and iron. This culture item offers a good area of convergence, particularly in the central Indian region. The press in which stone is used to squeeze out oil is generally known by the name of *kolu*. It is used by all the tribes and castes in the Dravido-Munda area, and by peoples in some places of northern India. It has been suggested long ago that the name of the oil-press is derived from Drav. *kallu* 'stone'. The Indo-Aryan word for oil press is *ghaani* / *ghaanaa*, derived from Skt. *ghaatana*- 'the act of crushing'. Wood or iron is used for this type of oil-press. It is used also in wide areas in central and northern India. There is a third word, *tiṛi*, representing another type of oil press. It is a crude type of tool having a heavy block of wood as the crusher, and is used in restricted areas in central India. We have not yet examined the possibility of an Austroasiatic origin for this word. But the word may have some connection with DED 2678: Ta. *tiṭṭu* 'to whet, sharpen', Ka. *tiṭṭu* 'to press, squeeze', Kol. (SR) *nuṇṇe diṭ*- 'to oil' etc.

Another interesting item of material culture is 'plough'. A common word is used for it in IA, Drav. and Munda; cf. Skt. *laṅgala* - 'id.'. In Drav. the cognates begin with *n*- (*ñ*- in Ta. and Ma.), but in Munda and IA. the initial sound is *l*-; *n*- forms are, however, common in the rural parts of Bengal and Bihar. The word can be analysed with greater ease from the point of view of Austroasiatic. There are two parts in it, *laṅ* and *gal(a)*. The latter portion, *gala*, *kala* is used as a separate word in some Austroasiatic languages outside India, meaning 'plough', or probably 'a wooden digging hoe'; cf. Sk. *hala* 'plough'. The first portion of the word, *laṅ*-, may be a separate word meaning 'ploughshare'; cf. Gutob *sunui* 'a plough', *sunui-laṅ* 'a ploughshare'. It may also be composed of a Prefix *l*- + a secondary nasal sound + the Root *gala/kala*. We need not develop this point further, as it is an old suggestion. Let us examine another set of Munda words; e. g. Didey *si* ?- 'to plough', 'tear open earth', *si-n-i* ?, *si-s-i* ? 'a plough'; Bonda *se*- 'to plough', *si-n-e*, *se-n-e* 'a plough', *se-se-rem* 'a cultivator': *rem* 'man'; Gutob *su-nui* 'a plough', *sunui-laṅ* 'a ploughshare'; Parengi *si-n-a-l* 'ploughshare'; Juang (Keonjhar dialect) *si-n-i*- (*n*)

'a plough', Dhenkanal dialect si-n-i 'id.', siluk si- 'to plough'; Kharia si-, silo?-'id.', si-n-i 'a plough', kanaḍ si?-'to harrow for levelling the ground after ploughing'; Ho si?-'to plough'; Asuri si?-'to plough, nahel sio 'a plough'; Koraku pata si 'ploughshare'; Korku siu 'to plough', siu miṭhaij 'cultivator'; Mundare si-, siu 'to plough; cultivation', siu-ni 'one who ploughs'; Santali si-'to plough', siok'-ic 'a plough man etc.'

This set of Munda words is comparable with the Vedic words, siitaa, śitaa 'furrow', 'the track or line of a ploughshare'. In the Rg-Veda (iv, 57, 6) siitaa has been invoked as presiding over agriculture or fruits of earth; cf also the Vedic words siiraa 'a plough'. Lexicographers have derived both siitaa and siiraa from si-'to draw a straight line' (see Monier-Williams, Sanskrit-English Dictionary). But the Vedic Aryans are known to have been a pastoral people, while agriculture is the principal occupation of the Munda speaking tribes. It is difficult to persuade the conservative section among them to take up any other job than agricultural work. The Didey form si?, and its meaning, 'to split up', or 'crack open the earth' seem to be nearest to Proto Munda. Raama's wife Siitaa emerged from under the earth in this manner. This set of Munda words bears resemblance also to some Drav words; cf. DED 2056: Ta. ciintuka 'to tear, etc.' Ka. sigi 'to split', Te. ciiru 'to rend, etc.'. Pa. ciik- 'to tear', Brahui ciirñ 'to slit, tear open, etc.', etc. The authors of DED have referred this item to the IA forms, cirno, ciro, etc. in Turner's Etymological Dictionary of Nepali. From what we have said above, the meaning of the set of IA words quoted there agrees with the meaning of the Munda words cited by us. Plough cultivation is much ahead of hoe cultivation or burning cultivation, for in the cases of the latter two the seeds are sown by digging in, or scratching the earth.

We come to know about the customs and rites of the various Dravidian and Munda tribes of this area by reading Dalton's *Ethnology of Bengal* (1872), and Risley's *Tribes and Castes of Bengal* (1891). In those days Bengal covered the whole of eastern India including Bihar, Orissa and the eastern part of Madhya Pradesh. This ethnological literature proves beyond doubt that the entire population of this area consisting of different castes and tribes living in different sub-areas have a common culture core, howsoever small it may be. Furthermore, the speakers of Dravidian and Munda have greater areas of agreements in their cultures, i. e. in their social organisation, religious life, material culture, marriage rites, and so forth. This prompted us to examine

a portion of their culture words to find out if there is a corresponding convergence in their vocabulary. The results of this enquiry were published in three papers on Munda etymologies, the last of which dealt with kinship terms alone. The Austroasiatic element occupied the highest position, the Indo-Aryan element coming next in order, while the Dravidian element occupied the last position, along with a fourth element which we may call the unidentifiable element. The percentages have been spelled out clearly in our paper on the Munda kinship terms.

It should be mentioned here that a portion of the IA element in Munda is commonly found also in Dravidian, but in many of them the relationship referred to shows a greater agreement between Dravidian and Munda on account of the greater agreements in their social organisation. Take for example, the word *maamaa*. The common meaning found in all the three groups of languages is 'mother's brother', but in addition to that, in the Drav. and the Munda languages the word also means 'father-in-law', 'father's sister' 'husband' etc. This is due to the existence of cross-cousin marriage among the Dravidians and Mundas, and its absence among the speakers of Indo-Aryan, in general.

Let us illustrate the convergence with the help of another example from kinship terminology in which a structural analysis is possible, and where the Root of the word perhaps originated from Drav. and adapted thoroughly in Munda, and slightly also in Indo-Aryan. The Munda words are: Didey *goṛai*, *goṛa* 'boy'; Parengi *koṛo-n* 'daughter, brother's daughter, wife's sister's daughter'; Juang *oṛi konon* 'infant boy', *oṛi kon-celañ* 'infant girl'; Kharia *kunḍu*, *kūṛu* 'infant', *paṅgoṭ kūṛu* 'adopted son'; Asuri *koṛ-a* 'son', *kuṛ-i* 'daughter'; Birhoṛ *koṛ-a* 'son', *kuṛ-i* 'daughter'; Mundari *koṛ-a hon* 'son', *kuṛ-i hon* 'daughter'; Santali *koṛ-a* 'son', *kuṛ-i* 'daughter'. The word-Root is further extended to the next generation; e. g. Santali *koṛ-ar* 'grandchild', etc.; see my paper (1970), items 8 and 56.

A linguistic family can be distinguished, among other signs, also from the way a native sound which is common to all, develops in them. In the present case, initial *k- is native to Indo-Aryan, Dravidian and Munda. In the former it is preserved, in Drav. it is changed in Ta., Ma. and Te. to c- in certain positions, and in Munda a native k- is preserved in Korku, is changed to h- in Kherwari, i. e. Santali, Mundari and their dialects, and in South Munda, particularly in Lower Munda, i. e. Didey, Bonda and Gutob, it is reduced either to a glottal stop, or to zero. But in the Munda example cited above, the Root *koṛ/goṛ/* etc. retains the initial k- both in

Kherwari and Lower Munda, and from it we may suspect some extraneous influence. We have therefore suggested that the Root was borrowed in Munda from Dravidian; cf. DED 1787: Ta. *koluntu* 'tender twig, etc.'; Te. *koḍuku* 'son', *konḍika* 'child'; Pa. *koṛ* 'very young': Konda *koṛ-o* 'son, boy', pl. *-k* (female child), *-r* (male child); DEDS: Ta. *koluntan* 'husband', 'husband's younger brother', *kalunti* 'wife's sister', 'brother's wife'; Nk. (Chanda) *kol-a* 'bride', 'son's wife'; Konda *koṛya* 'daughter-in-law', 'younger brother's wife'; Pe. *koṛiya gaar* 'younger brother's wife'; etc. It will be found that the special semantic development of the Root in the direction of forms expressing relationship involving a taking of tender care (i. e. infant, son, daughter, younger brother's wife, etc.) predominates in Munda from where it perhaps spread over to some Drav. languages of the area, Konda, Pengo, Telugu, etc., and then to Ta. 'husband's younger brother; husband'. The formation of the feminine gender with the help of a descriptive word (Juang *oari kon-celañ* 'infant girl', *kon-celañ* 'daughter', *celañ* 'woman', *kon* 'child') is a predominant feature of Munda, for which suffixes are mostly used in Drav. and IA. Pe. *koṛiya gaar* 'younger brother's wife', Mand, *kuṛiya gaar* 'son's wife, younger brother's wife', etc. seem, therefore, to be froms influenced by the speech habit of the Mundas.

We may conclude this brief account of ours by referring to the second part of Emeneau's excellent paper, "The Indian Linguistic Area Revisited" (IJDL, 3, 1, 1974, pp. 111 ff.) in which he has very ably discussed the social and linguistic structures in Indian languages with the help of paired words of caste names indicating males and females. Probably he has searched in a wrong place in our books on Parji and Pengo for the paired words indicating males and females. The reason of the absence of paired words in the caste names in Pa. and Pe. will be explained by what we have said in the previous paragraph. These Drav. languages usually follow the Munda mode of using a compound to express the females of human groups and animals. One part of the compound is a word indicating fem. gender. Age groups are also formed in the same manner. The me gender. suffixes that are available in those languages have been discussed in the sections on Gender. Kinship terminology is another area in which we can find the techniques of gender formation. We have discussed this aspect of the question of gender in our paper on "Gender system in Munda", presented at the First International Conference on Comparative Austroasiatic Linguistics, held at Honolulu in Jan. 1973. It is significant that the present writer could record a large number of suffixed forms of the males and females

of caste names from Naiki of Chanda which he studied only for three days; but such forms were not easily available in Parji, Pengo and Manda. It is because the speakers of Naiki now live in an area which is far away from the regions where Munda is spoken. Moreover, the speakers of Naiki of Chanda live now in small pockets surrounded by speakers of IA., and for some centuries they have been living here as a sub-group of the Gond.

Munda kinship terms are still classificatory in type in consonance with the situation prevailing in many other Austroasiatic languages. In addition to the descriptive terms used in Munda to narrow down the semantic range, suffixes also are used in it to distinguish between the males and females. The suffixes, generally used to indicate the male sex, are, -o, -ai, -a, and to indicate the female sex, are, -n, -a, -ey/ḍey and -i. Other methods like duplication, prefixation, etc. are also used. The suffixes mentioned above appear to us to be derived mostly from Indo-Aryan. But we must stress here that masc. -a and fem. -i are not confined to Indo-Aryan and Dravidian. It is found also in Munda (some examples have been quoted above) and Tibeto-Burman (cf. Meithei, may b-a 'a Manipuri male', mayb-i 'a Manipuri female'). We have a feeling that this -a and -i illustrate a substratum feature of the Indian languages, and probably it expressed the 'Superior' and 'Inferior' status, or big things and small things, respectively. The Hindi-Urdu two-gender system seems to be a product of this substratum. In the rural areas of Eastern U. P. paired forms like gohr-a and gohr-i are commonly heard, meaning 'big-sized cowdung cakes' and 'small-sized cowdung cakes' (used for igniting fire), respectively. This was perhaps the type of gender classification prevailing in olden days in Munda and Dravidian, although I do not mean here the Proto-Munda and Proto-Dravidian periods. This period represents the lower stratum of Dravido-Munda culture. The Indo-Aryan gender system based on sex was laid over it at a later period which we have called the upper stratum of this culture.

We have refrained from using the terms Proto-Dravidian and Proto-Munda in this context, as the hypothesis of an original two-class division of Drav. and Munda nouns may be an oversimplification of a very complicated situation prevailing at least in the Drav. gender system. Vestigial and living fem. suffixes are a pan-Dravidian feature. We come across living fem. suffixes even in Central Dravidian; e. g. Gondi, Kui and others. But a Munda and Austroasiatic influence can not be denied on some Dravidian languages spoken in eastern India. The numeral system would provide another fruitful area for the study of gender in Drav. and Munda. Many languages

of this area of both the Families have two forms for some of the numerals. According to our interpretation, these two forms reflect the superior and inferior status of the things counted, although by Superior gender is sometimes meant here only masc., and sometimes both masc. and fem. In the Parji-Kolami group of Central Dravidian languages there has been a special development of a separate numeral form for the fem. nouns.

A system of classification of nouns in which the form of the numeral plays the role of the indicator, is a dominant feature of the Austroasiatic, Tibeto-Burman and some other language-groups of South-East Asia. The system of adding the classifying particle to the numeral to express some sort of classification of the nouns is found also in many modern Indo-Aryan languages, especially in the east starting from Eastern Hindi. As far as the present writer has studied this linguistic phenomenon, this classification, or the system of the so called numeral classifiers, is actually based on a gender system based on 'Superiority' and 'Inferiority'. Here we wish to redefine 'gender' and 'classifier' in the following terms: A gender is a psychological classification of nouns, based on sex, animateness-inanimateness, superiority-inferiority, and so forth. A classifier, on the other hand, is a division based on the external features of the nouns, their size, their weight, their shape, and so forth. In Bengali, the phrases, *ek-jan lok* 'one person', *ek-ṭa goru* 'one cow', *ek-ṭa naaṛu* 'one ball-shaped sweetmeat' are quite appropriate. We can not say *ek-jan naaṛu*. But if one says *ek-ṭa lok*, it would indicate 'a person of lower status'. We have therefore taken this division prevailing in Indo-Aryan to be based on 'Superiority' and 'Inferiority'. This reminds us of the native Tamil, Telugu etc. grammarians practice of dividing nouns into *mahat* 'superior', and *amahat* 'inferior', genders. We have shown elsewhere (1973) that the division of nouns based on 'Superiority' and 'Inferiority' is the basic gender system in Munda, as this system is found all over Munda, while animateness and inanimateness is confined mostly to Kherwari.

Apart from this gender system based on 'Superiority' and 'Inferiority', we may mention here an aberrant feature to be found in Malto alone is Drav. Here actual numeral classifiers based on the external features of the objects are used in plenty. Many of the classifying particles are actually independent words; cf. English 'a bunch of flowers, keys and other such things', 'two litres of milk; oil and other such things'. But the special development Malto has shown in this direction is unique in Dravidian, and can not be cheaply dispensed with. Droege drew our attention to this Malto feature

first, and recently it has been elaborately discussed by Mahapatra. This is a feature in Dravidian which can not be explained without the help of extra-Dravidian sources.

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HISTORICAL CHANGE AND SYNCHRONIC STRUCTURE: THE CASE OF THE SANSKRIT ROOT NOUNS

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In the synchronic derivation of the Sanskrit root nouns* in root-final consonant,¹ two problems arise, namely (1) the general problem as to whether the surface forms of the (animate) nominative singular of the type *viṭ* 'clan' (from the root *viś-*), *dviṭ* 'hate' (from *dviṣ-*), and *vit* 'knowledge' (from *vid-*) should be considered derived from underlying forms characterized by the nominative singular ending */-s/*, and (2) the specific problem of how and by what rules the nominative singular, instrumental plural (and similar forms with case endings in suffix-initial *bh-*²), and locative plural forms of roots in rootfinal underlying palatal³ or retroflex⁴ obstruent are to be derived; cf. the following partial paradigms :

| | | | |
|--------|-----------------------------|------------------------|----------------|
| ROOT : | <i>/viś-/</i> | <i>/dviṣ-/</i> | <i>/vid-/</i> |
| sg. N | <i>viṭ^{4a}</i> | <i>dviṭ</i> | <i>vit</i> |
| A | <i>viśam</i> | <i>dviṣam</i> | <i>vidam</i> |
| pl. I | <i>viḍbhis^{4a}</i> | <i>dviḍbhis</i> | <i>vidbhis</i> |
| L | <i>vikṣu → viṭṣu</i> | <i>dvikṣu → dviṭṣu</i> | <i>vitsu</i> |

As far as the first of these two problems is concerned, the fact that the surface forms of the nominative singular of root nouns in root-final consonant never show up with final *-s* might be taken as strong evidence that these nouns do in fact not have an underlying nominative singular ending */-s/*. This would of course not be entirely without precedent in Sanskrit, since also the (equally animate) *ā*-stems and (most of the derived) *ī*-stems, the *r*- and *n*-stems, and all consonant stems lack surface evidence for an underlying nominative ending */-s/*.

On the other hand, the root nouns of roots in final long vowel⁵ clearly show a nominative singular ending *-s* on the surface, as in *dhī-s* 'meditation' (from *dhī-*), thus requiring the setting up of an

underlying nominative ending /-s/ for at least this subclass of the root nouns. And again there is ample precedent for such an underlying ending in the (animate) inflection of the *a*-, *i*-, *u*-, and *ū*-stems, as well as in some synchronically aberrant *ī*-stems.

Considering now that Sanskrit has an independently motivated general rule which deletes all but the leftmost consonant in final consonant clusters, it might well be argued that *all* root nouns, not just those in final vowel, but also those in final consonant, take the underlying nominative singular ending /-s/ and that the absence of this ending in the surface forms of root nouns in final consonant simply results from the application of this general final cluster simplification rule.⁶

Though it is perhaps not a priori impossible that native speakers of the language should have made such a generalization about the underlying structure of the nominative singular of all root nouns, there are other data in the language which should give one pause. Thus, in the derived long-vowel stems, which in terms of other features of their morphology⁷ constitute a distinct subclass of the vowel stems,⁸ the *ā* stems never take the nominative singular ending /-s/, while the *ū*-stems always take it, and the *ī*-stems take it only in a few exceptional noun stems. It is thus by no means self evident that membership in the same inflectional subclass automatically entails identical underlying structure in the nominative singular.

In light of this evidence it would seem indicated to require more substantial proof for the existence of an underlying ending /-s/ in the nominative singular of root nouns in root-final consonant than the mere fact that the existence of this ending is guaranteed for the root nouns in root final long vowel. One of the purposes of this paper will be to determine whether any such more substantial proof can be found.

As for the second problem, namely the derivation of the nominative singular, instrumental plural (and other *bh*-cases), and locative plural of roots in final palatal or retroflex, two difficulties arise.

The first of these is the formal relationship between the *ṭ* (or *ḍ*) of the nominative singular and the *bh*-cases (as well as the optional locative plural *viṭsu* of the later language) on the one hand, and the *k* of the regular locative plural *vikṣu* on the other. The latter is the form exclusively found in the earlier language and optionally (beside *viṭsu*) in the later language. A discussion of these forms must also take into account the fact that in verbal root inflection,

we do not only find a recurrence of the surface alternants in root-final *k* before *ṣ* (from /s/), such as fut. *vekṣyati*,⁹ *dvekṣyati* (cf. *vetsyati*), but also forms like the participles *viṣṭa*, *dviṣṭa*- with surface *ṣ* before *ṭ* (from /t/; cf. *vitta*-). Note that in verbal inflection, this surface distribution of alternants in root-final *k* before *ṣ* (from /s/) and *ṣ* before *ṭ* (from /t/) is completely regular and without exceptions.¹⁰

The second difficulty is the specific formal and historical relationship between the exclusive locative plural *vikṣu* of the earlier language and the optional *viṭsu* of the later language. It is, of course, quite evident that the chronologically later and even then only optional form must be a morphological/analogical replacement of the chronologically earlier form. However, what is not so evident, but of great interest for the present discussion, is the question of what is the formal motivation for this replacement and how the grammar of Sanskrit made this replacement possible.

As far as the first of the two problems just outlined is concerned, namely the underlying structure of the nominative singular of root nouns in root-final consonant, one synchronically a priori possible analysis can be found which would seem to establish that there is (indirect) surface evidence for an underlying nominative singular ending /-s/. This analysis would thus furnish a more substantial proof for the underlying occurrence of this ending than the mere fact that its underlying occurrence is guaranteed in the inflection of root nouns in root-final long vowel.

To account for the relationships of the surface alternants in -ṭ/ḍ, -k, and -ṣ of roots in underlying root-final palatal or retroflex, both to each other and to the underlying palatal or retroflex, this analysis must posit the following rules.¹¹

(i) RETROFLEXION: [+ pal.] → [+ retr.] /
[+ obstr.]¹²

(ii) STOPPING:
$$[+ \text{ retr.}] \rightarrow [+ \text{ stop}] / \text{---} \left\{ \begin{array}{l} + \text{ obstr.} \\ - \text{ dent.} \\ - \text{ stop} \end{array} \right\}$$

(iii) CLUSTER SIMPLIFICATION: $C_o \rightarrow \emptyset / C \text{ --- } \#.$

This rule is independently motivated; cf. sg. N /bhar-a-nt(-s) # /¹³
→ *bharan*.

iv) RETROFLEX ASSIMILATION (a mirror-image rule):

$[+ \text{ dent.}] \rightarrow [+ \text{ retr.}] / [+ \text{ retr.}]$. The expansion after [+ retr.] is independently motivated; cf. /hav-is-su/ (pl. L of *hav-is* - 'oblation') → /hav-iṣ-su/ by the well-known RUKI-rule → *haviṣṣu* by RETROFLEX ASSIMILATION.

(v) *k*-RULE : $\left[\begin{smallmatrix} + \text{ stop} \\ + \text{ retr.} \end{smallmatrix} \right] \rightarrow [+ \text{ vel.}]/- \$. This rule accounts$

for the fact that *ṭṣ* does not occur on the surface, at least not under internal sandhi conditions, *ks* occurring instead.

The following derivations may help illustrate the justification of these rules, their relative ordering, and the mutual relationships between them. As can also be seen from these derivations, the above set of rules presupposes the existence of an underlying nominative singular ending */-s/*. Without such an ending, the underlying shape of the nominative singular of the root */viś-/* would have to remain unchanged and we would have to wind up with an unattested surface form *viś** which, with its word-final palatal, is clearly non-permissible in Sanskrit which does not permit any surface forms in wordfinal palatal.

| | sg. N | pl. I | pl. L | ppl. | fut, |
|-------|----------------|-----------------------------|-----------------|-----------------|-----------------------------|
| | <i>/viś-s/</i> | <i>/viś-bhis/</i> | <i>/viś su/</i> | <i>viś-ta-/</i> | <i>vaiś sya-/</i> |
| (i) | <i>viṣ-s</i> | <i>viṣ-bhis</i> | <i>viṣ-su</i> | <i>viṣ-ta-</i> | <i>vaiṣ-sya-</i> |
| (ii) | <i>viṭ-s</i> | <i>viṭ bhis</i> | <i>viṭ-su</i> | ----- | <i>vaiṭ-ṣya-</i> |
| (iii) | <i>viṭ</i> | ----- | ----- | ----- | ----- |
| (iv) | ----- | ----- | <i>viṭ-ṣu</i> | <i>viṣ-ṭa-</i> | <i>vaiṭ-ṣya-</i> |
| (v) | ----- | ----- | <i>vik ṣu</i> | ----- | <i>vaik-ṣya-</i> |
| | <i>viṭ</i> | <i>viṭbhis¹⁴</i> | <i>vikṣu</i> | <i>viṣṭa-</i> | <i>vekṣya-¹⁵</i> |

The optional replacement *viṭsu* of earlier *vikṣu* can, under this analysis, be accounted for as owing its existence to the fact that the derivation was 'aborted' before the application of rule (iv). The motivation for this 'abortion' can be considered to be the fact that it leads to the surface generalization that roots in underlying palatal or retroflex appear with a root-final retroflex stop before *all* consonant-initial endings, i. e. not only before the nominative singular ending */-s/* and the *bh*-case endings, but also before the locative plural ending */-su/*.

Though the analysis just presented does manage to account for the facts, including the replacement of the older locative plural *vikṣu* by *viṭsu*, and, in so doing, also manages to furnish what appears to be proof for the existence of an underlying nominative singular ending */-s/* even in root nouns in root-final consonants, it suffers from the following defects.

(1) The environment of rule (ii), STOPPING, with its exception of dental stops,¹⁶ but not of the equally dental sibilant *s*, from the class of obstruents is a strange rule indeed. A derivation which

manages to avoid positing this (part of the) rule would therefore seem preferable.

(2) In the optional later replacement of the inherited locative plural *vikṣu* by *viṭṣu*, it is strange that the derivation should have been aborted before the regular, general RETROFLEX ASSIMILATION rule (iv). It is true, one might claim that the motivation for this abortion was to avoid coming up with the otherwise unprecedented surface form *viṭṣu*. For, as pointed out before, *ṭṣ* does not occur on the surface, at least not under internal sandhi conditions. However, note that also unassimilated *ṭṣ* does not occur on the surface, again at least not under internal sandhi conditions. The fact that it does occur in external sandhi, i. e. across word boundary, is simply due to the fact that RETROFLEX ASSIMILATION is an internal sandhi rule which does not apply under genuine external sandhi conditions.¹⁷ However, notice that since retroflex stops are among the word-final consonants permitted on the surface, and since there are some Sanskrit words which appear with initial *ṣ* on the surface (such as *ṣaṭ* '6'), it is a priori quite likely that also *ṭṣ* can occur across word boundary.¹⁸

(3) As the subsequent discussion will show, the present analysis suffers from the fact that it narrowly focusses on the evidence of the nominal (and verbal) inflection of simple roots, without taking into consideration the evidence of other inflectional classes.

An alternative analysis takes into consideration the following additional evidence of the neuter *is*-stems¹⁹ and *as*-stems.

| | /jhav-is-/ 'oblation' | /man-as-/ 'mind' |
|---------|-----------------------|---------------------|
| sg. N/A | havis | manas |
| pl. I | havirbhis | manobhis |
| L | haviṣṣu (≈ haviḥṣu) | manassu (≈ manaḥṣu) |

Notice that before word boundary plus voiced segments, the nominative/accusative singular forms have the surface representations *havir* and *mano*.

In addition, this analysis takes into consideration the fact that outside the *bh* cases both of the *is* - and *as* - stems and of the root nouns in root - final palatal or retroflex (as well as the later, innovated locative plural of these root nouns),²⁰ the surface representations *ir* (of underlying /is/), *o* (of underlying /as/), and *ṭ/ḍ* (of underlying palatal or retroflex) are found only under external sandhi conditions. In order to capture this generalization, the present analysis distinguishes between the following internal and external sandhi rules and has the latter apply exceptionally, but categorially predictably,

in those forms whose surface representations are of the sort otherwise found only in external sandhi.

(I) 'LINGUAL' NEUTRALIZATION (an internal sandhi rule);

$$\left\{ \begin{array}{l} [+ \text{ retr.}] \\ [+ \text{ pal.}] \\ [+ \text{ vel.}] \end{array} \right\} \rightarrow k / - s.$$

(II) RETROFLEXION (internal and external) : ²¹

$$[+ \text{ pal.}] \rightarrow [+ \text{ retr.}] / - \left\{ \begin{array}{c} \# \\ C \end{array} \right\}.$$

This rule accounts among other things, for the fact (pointed out earlier) that Sanskrit does not permit any surface forms in word-final palatal.

(III) STOPPING₂ (external):

$$[+ \text{ retr.}] \rightarrow [+ \text{ stop}] / - \#.$$

(IV) RUKI (internal and external) : $s \rightarrow \text{ṣ} / \text{RUKI} - (\#)$.

(V) RETROFLEX ASSIMILATION (internal; mirror image):

$$[+ \text{ dent.}] \rightarrow [+ \text{ retr.}] // [+ \text{ retr.}]$$

(VIa) RHOTACISM (external) : $\text{ṣ} \rightarrow r / - \# [+ \text{ voice}]$.

(VIb) o-RULE (external) : $a \rightarrow o / - \# [+ \text{ voice}]$.

The relationship of these rules, their ordering and justification can be illustrated by the following sample derivations :

| sg. N | pl. I | pl. L | ppl. | fut. | |
|-------------|------------|----------|----------|-----------|-------------|
| /viś #/ | /viś-bhis/ | /viś-su/ | /viś-su/ | /viś-ta-/ | /vaiś-sya-/ |
| (i) ——— | ———— | vik-su | ———— | ———— | vaik-sya- |
| (ii) viṣ # | viṣ-bhis | ———— | viṣ-su | viṣ-ta | ———— |
| (iii) viṭ # | viṭ-bhis | ———— | viṭ-su | ———— | ———— |
| (iv) ——— | ———— | vik-ṣu | ———— | ———— | vaik-ṣya- |
| (v) ——— | ———— | ———— | ———— | viṣ-ṭa- | ———— |
| viṭ | viḍbhis | vikṣu | viṭsu | viṣṭa- | vekṣya- |

| | pl. I | pl. L | pl. I |
|-------|-------------------------|-----------------------|---------------|
| | /jhav-is-bhis/ | /jhav-is-su/ | /man-as-bhis/ |
| (iv) | jhav-iṣ-bhis/ | /jhav-iṣ-su/ | ———— |
| (v) | ———— | jhav-iṣ-ṣu | ———— |
| (via) | jhav-ir-bhis | ———— | ———— |
| (vib) | ———— | ———— | man-o-bhis |
| | havirbhis ²² | haviṣṣu ²³ | manobhis |

As these derivations indicate, this analysis does not require the existence of an underlying nominative singular ending /-s/ in the root nouns in root-final consonant.²⁴ Considering that the discussion

at the beginning of this paper has shown that in order to be acceptable, the assumption of an underlying ending /-s/ for these nouns is in need of substantial proof (by some kind of surface evidence), it would appear that the present analysis favors the view that there is in fact no underlying ending /-s/ in the nominative singular of these nouns.

As is also shown by these derivations, the formal difference between the inherited locative plural *vikṣu* and the innovated form *viṭsu* is under this analysis explained as reflecting the fact that the former is derived by internal sandhi rules, while the latter is derived by external sandhi rules. The historical motivation for this latter derivation no doubt consisted in the fact that the new locative plural thus followed the pattern encountered in the other case forms with consonant-initial endings, namely the *bh*-cases, which clearly take external sandhi rules. That is, we are here simply dealing with a case of rule generalization.

By considering not only the evidence of the root nouns, but also that of the *is*- and *as*-stems, and by formally capturing the generalization that outside of these nouns the surface representations *ir* (of/*is*/), *o* (of/*as*), and *ṭ/ḍ* (of underlying palatal or retroflex) are found only in external sandhi, the present, alternative analysis thus would seem better motivated and hence more acceptable than the preceding analysis.

This impression is further enhanced by the fact that the present analysis manages to avoid positing the strange environment for STOPPING which the preceding analysis had to postulate. Similarly, the present analysis avoids the difficulty encountered in the derivation of the innovated locative plural *viṭsu* postulated by the preceding analysis.

Both of these additional advantages of the present analysis are, of course, ultimately the result of the fact that the present analysis permits the exceptional, categorially predictable application of external sandhi rules under internal sandhi conditions.

However, it is precisely this typologically rather unusual internal application of external sandhi rules which may be considered to seriously weaken the plausibility of the present analysis. In the remainder of this paper I will attempt to show that this possible counter argument against the present analysis is in fact not a valid one, since the historical evidence of morphological/analogical changes clearly indicates that of the two analyses here considered, it is only the second, alternative analysis which accommodates and explains these changes.

Historical (and comparative) evidence shows that the application of regular phonetic change should have brought about the following *bh*-case forms.²⁵

wik-bhis* > **viṣ-bhis* > *vī-bhis

-is-bhis* > **-iṣ-bhis* > *ī-bhis²⁶

**wid-bhis* > *vid-bhis*

**men-os-bhis* > **man-as-bhis* > *man-o-bhis*.

For the merger of Proto-Indo-European palatals and *s* (> *ṣ* by RUKI) into *ṣ* before consonant, cf. the evidence of the participles **wik-to-*, **dwis-to-* > *viṣ-ṭa-*, *dviṣ-ṭa-*, as well as the evidence of the closely related Avestan which not only offers forms like pple. *vīš-tā-*, but also forms like pl. *Ivizə-bīš* (with voice assimilation and epenthesis) —For the loss of **ṣ* (> **z*) before voiced obstruent, with compensatory lengthening of preceding short vowels, cf. PIE **nisdo-* > *nizḍa-* > *nīḍa-* 'nest' and PIE **lig'h-to-* > **lizḍha-* (with the 'aspirate transfer' due to Bartholomae's Law) > *līḍha-* 'licked'.

It can thus be concluded that of the attested instrumental plural forms, only the type *vid-bhis*, *man-o-bhis* is inherited, while the type *viḍ-bhis*, *hav-ir-bhis* must be innovated, the motivation no doubt being that the innovated forms more closely resemble their underlying counterparts than the inherited forms.

In traditional terms, these innovated forms can be formally motivated by the following four-part analogies.

Root nouns :

| | | | |
|-----------------------------|-----------------|---|---------------------|
| sg. N (/ — # [+ voice]) | <i>vid</i> | : | <i>viḍ</i> |
| pl. I | <i>vid-bhis</i> | : | X = <i>viḍ-bhis</i> |

s-stems :

| | | | |
|-----------------------------|-------------------|---|--------------------------|
| sg. N (/ — # [+ voice]) | <i>man-o</i> | : | <i>hav-ir</i> |
| pl. I | <i>man-o-bhis</i> | : | Y = <i>hav-ir-bhis</i> . |

Similarly, the innovated locative plural can be explained as the result of analogy, the motivation being the reduction of surface alternations :

| | | | | |
|------------|---|-----------------|---|---------------------|
| <i>vid</i> | : | <i>vid-bhis</i> | : | <i>vit-su</i> |
| <i>viḍ</i> | : | <i>viḍ-bhis</i> | : | Z = <i>viṭ-su</i> . |

While there is nothing in the formulation of the first analysis presented in this paper which would capture or accommodate the analogical developments in the *bh*-cases, the second, alternative analysis manages to do so in a very straightforward fashion. For this analysis makes it possible to restate these developments in terms

of generative phonological theory, as (1) a reinterpretation of ambiguous forms like *vidbhis* and *manobhis*, which can be accounted for both by external and by internal sandhi rules, as showing the same external sandhi as the corresponding nominative singular forms in voiced environment, and (2) as the generalization of this external to the *is*-stems and to the root nouns in root-final palatal or retroflex.²⁷

The analogical developments in the locative plural of the root nouns can, as was pointed out earlier, be similarly accounted for as a case of rule generalization. And although also the first analysis did manage to account for the innovated locative plural in an acceptable fashion, namely as motivated by a simple surface generalization, it did not manage to show that this generalization was in fact the continuation of a process which had previously affected the *bh*-cases.

Even the fact that no such generalization took place in the locative plural of the *is*- (and *as*-) stems can be motivated by the alternative analysis (while it is not entirely clear whether the first analysis could do so), namely as due to the fact that the external sandhi rules responsible for the surface forms of the *bh*-cases, namely RHOTACISM and *o* RULE, could not be generalized into the locative plural, since the ending of the latter begins in voiceless obstruent, rather than the voiced segment required by these rules. On the other hand, the rule responsible for the retroflex stop in the *bh*-cases of the root nouns under discussion can apply without regard to the voicing or lack of voicing of the following segment.

It can thus be concluded that the second, alternative analysis is preferable over the first analysis and that as a consequence the concept of exceptional, categorially predictable internal application of external sandhi rules can indeed be maintained for the synchronic grammar of Sanskrit. In addition, the choice of the second analysis over the first entails the conclusion that there is no substantial proof for the existence of an underlying ending */-s/* in the nominative singular of root nouns in root-final consonant.

Finally, the argumentation of this paper has shown that it is not, as commonly believed, only the evidence of 'regular' phonetic change, but also that of morphological/analogical change which can be utilized in deciding between competing synchronic analyses.²⁸ This is, of course, of special significance when dealing with extinct languages where it is impossible to ask the native speaker the famous question 'Can you say...?'

FOOTNOTES

- * Paper read at SECOL VIII, October 27, 1972, Washington, D. C. -- To be published also in the Proceedings of SECOL VIII
1. This root-final consonant can be underlying (as in *viś-* 'clan') or derived by an early rule which inserts *-t-* (in root nouns) after roots in final short (synchronic) resonant (i. e. *i*, *u*, *r*). For the purposes of this paper, also root nouns of the latter type will be considered to have an underlying root-final consonant.
 2. I. e. D/Ab. pl. *-bhyas* and I/D/ Ab. du. *bhyām*.
 3. That contrary to the tradition of the Sanskrit grammarians which, at least in root-final position, does not make a distinction between palatals and velars, there must indeed be an underlying distinction between velars and palatals should be evident from the systematic distinction between (velar) sets like perf. *yuyoja* 'yoked': pple. *yukta* and (palatal) sets like *iyāja* 'worshiped': *iṣṭa-*. The details of the partial surface merger of underlying velars and palatals is a more complex matter, which I hope to discuss elsewhere. However, for the present discussion, this matter is of no consequence.
 4. That there must indeed be an underlying difference, at least within roots, between dental *s* and retroflex *ṣ* has been convincingly shown in O'Bryan 1972.
 4. a Some roots in final palatal (such as *diś-* 'direction') show a root final velar, rather retroflex stop, in the surface representations of the nominative singular and the *bh* cases (such as sg. N *dik*, pl. I *digbhis*). These roots also lack the alternative locative plural with retroflex stop preceding the case ending. Forms of this sort will be disregarded in the subsequent discussion, for they seem to owe their existence to a general tendency of (final) tongue-tip articulated stops to become velar stops, a tendency which would probably be best captured by a low-level (minor?) rule. Compare Whitney 1889:52 for examples of velar stops from dental stops, and compare O'Bryan 1970 for a discussion (of the conditioning environments) of these phenomena.
 5. For root nouns of roots in final short *i*, *u*, *r*, cf. fn. 1 above. Roots in final *ā* do not seem to occur.
 6. This generalization could then perhaps be extended to apply not only to root nouns in final consonant, but also to all other formations in final consonant. However, such a generalization would be even more abstract than the one now being considered.

7. Cf. the (obligatory) *Vṛddhi* in the dative, ablative/genitive, and locative singular endings, discussed in Hock 1972.
8. This is true at least about the later language. In the earliest layers of the language, some synchronically aberrant *ī*- and *ū*-stems follow an inflection quite different from that of the regular *ī*- and *ū*-stems and *ā*-stems; and only the latter, regular long-vowel stems constitute a distinct subclass in terms of such processes as *Vṛddhi*. However, even here the regular *ū*-stems differ from the regular *ī* and *ā*-stems by taking the nominative singular marker /-s/.
9. The verbal root *viś*- 'enter' is not strictly speaking lexically identical with the nominal root *viś*- 'clan'.
10. For the rather irregular and no doubt secondary surface alternants before verbal endings in suffix-initial /dh-/, cf. fn. 16 and 27 below.
11. But cf. also fn. 16 and 18 below.
12. Actually, in order for the derivation to work for underlying /j/ and /jh/, this rule should perhaps be reformulated to yield $\left[\begin{smallmatrix} + \text{ sib.} \\ + \text{ retr.} \end{smallmatrix} \right]$ rather than simple $[+ \text{ retr.}]$. However, an alternative analysis might be considered, namely to have a rule SIBILANTING which converts $[+ \text{ retr.}]$ to $[+ \text{ sib.}]$ / — $\left[\begin{smallmatrix} + \text{ stop} \\ + \text{ dent.} \end{smallmatrix} \right]$ and which would be parallel to STOPPING. For the purposes of the present discussion, however, it is immaterial which of these alternative analyses is chosen. As a matter of fact, the alternative analysis would be even less suited to account for the facts discussed in footnote 16.
13. For the question whether consonant stems (other than the root nouns in root-final consonant) may have an underlying nominative singular ending /-s/, cf. fn. 6 above.
14. With independently motivated voicing assimilation.
15. With independently motivated contraction of /ai/ to *ē*.
16. Actually, the synchronic situation is far from settled or clear before voiced dental aspirates. Roots in final nonaspirated voiced or voiceless palatal (such as *diś*- 'point, direct' and *mṛj*- 'wipe') and roots in final retroflex sibilant (such as *viś*- 'be active') show (*t* →) *ḍ* before endings with underlying suffix-initial /dh-/ → surface *ḍh* (by RETROFLEX ASSIMILATION); cf. perf. impve. act. sg. 2 *di-diḍ-ḍhi*, *vi-viḍ-ḍhi*, pres. impve. act. sg. 2 *mṛḍ-ḍhi*, *viḍ-ḍhi*, mid pl. 2 *mṛḍ-ḍhvam*, *dviḍ-ḍhvam*. On the other hand,

roots in underlying final voiced aspirated palatal, such as /lijh-/ 'lick', have surface forms like pres. impve. mid pl. 2 *līḍhvam*, no doubt with /-jh-dh-/ → /-ṣ -ḍh-/ by RETROFLEXION and RETROFLEX ASSIMILATION and subsequent regular loss of ṣ before voiced segment, with compensatory lengthening of the preceding vowel. Finally, in aorist formations with underlying suffix /-iṣ-/ , we find forms like (impve.) mid pl. 2 in *-i-ḍhvam*, not *-iḍ-ḍhvam** or *-ī-ḍhvam**; cf. Whitney 1889;77 for details and examples. The interpretation of these forms is difficult, both under the present analysis and under the one to be presented in the remainder of this paper. However, the very irregularity of the pattern shows that it is difficult, if not impossible, to account for it in a natural, non-ad-hoc fashion, by somehow modifying the environment of rule (ii). On the other hand, as the discussion in fn. 27 will show, the alternative analysis presented in the remainder of this paper manages to at least *begin* to account for the facts in a non-adhoc fashion.

17. Exceptions occur only in the case of enclitics, such as in *dhenuṣ te* 'your milch cow'.
18. To avoid these difficulties, it could be claimed that the ṣ of *vikṣu* is not from RETROFLEX ASSIMILATION, but rather from the wellknown RUKI rule, applying after the *k*-RULE. One could then claim that the environment after *t* is an exception to RETROFLEX ASSIMILATION. This view might be considered supported by the fact that, at least under external sandhi conditions, *tṣ* is otherwise nonpermissible on the surface. However, as pointed out earlier, unassimilated *tṣ* is not permissible either, at least in internal sandhi. In addition, the regular surface absence or nonpermissibility of given (sequences of segments which could be expected to be generated by the derivation normally is motivated by specific, positive rules (such as neutralization), rather than by the fact that they are exceptions to an otherwise general rule. An analysis which does not have to resort to making the environment after *t* an exception to RETROFLEX ASSIMILATION would therefore appear preferable. And, as the subsequent discussion will show, the alternative analysis to be presented in the remainder of this paper does not have to resort to this 'exception' hypothesis. Finally, note that the discussion in fn. 27 will show that there is actually reason to believe that the environment after *t* is not an exception to RETROFLEX ASSIMILATION.
19. An entirely analogous and parallel pattern is found in the inflection of the *us* stems.

20. But cf. fn. 16 and 27.
21. Cf. fn. 12 above.
22. The change of /jh/ to surface *h* is regular in this environment.
— No indication has been made of the sandhi rules applying to the /s/ of the ending /-bhis/.
23. Cf. the preceding footnote. — The surface alternant *haviḥṣu* (and similarly the surface alternant *manaḥsu* of *manassu*) result (s) from a low-level (internal and external sandhi) rule which optionally changes sibilant to *h* before sibilant.
24. It should be admitted, however, that the present analysis could also accommodate an underlying representation of the sort /viś-s #/. For, as is shown by forms like *s-aor. sg. 2, 3 avāṭ* (from /a-vājh-s-s/ and /a-vājh-s-t/ whose underlying morpheme structure is established beyond any reasonable doubt, since in the environment after vowel, the suffix -s- and the endings -s and -t are always present), CLUSTER SIMPLIFICATION must precede the external sandhi rule sequence (II) / (III).
25. In the following I will simply state my views on this matter and what I consider the most salient evidence in favour of these views, without trying to give a detailed discussion and, where necessary, refutation of the various different views which can be found in the literature.
26. Since it is not certain that (all) the *is*-stems are direct inheritances from Proto-Indo-European, I am here merely giving the putative history of the suffix as it should be expected to have developed.
27. Notice that the second, alternative analysis, unlike the first analysis, also makes it possible to at least *begin* to explain the facts summarized in fn. 16. As the discussion in the main text of this paper has shown, it is forms like *liḍhvam*, with loss of *ṣ > *ṛ before voiced obstruent and with compensatory lengthening of the preceding vowel, which are the most original forms. Forms like *dviḍhvam* and the aorist forms in *-iḍhvam*, then, must be innovations. While I can think of no simple and straightforward explanation of the latter, the former can be explained as showing the transfer of the principle of external sandhi rules from the root nouns to the verbs, motivated no doubt also here by the desire to wind up with surface forms whose structure more transparently resembles their underlying structure. However, because, unlike the situation in the root nouns, there was no paradigm-internal source for this generalization, the process of generalization was much less complete.

Thus, while in the innovated locative plural *viṭsu* no exclusively internal sandhi rules, but only external sandhi rules apply, in verbal forms like *dviḍḍhvam* the internal RETROFLEX ASSIMILATION rule motivated applies. This difference, however, may perhaps be for, while the cluster *ṭs* is permissible (under external sandhi conditions), clusters of retroflex stop plus dental stop (or vice versa) are not permissible, even under external sandhi conditions. The application of RETROFLEX ASSIMILATION thus would eliminate an otherwise nonpermissible cluster. More important is the situation found in roots in final voiced aspirated palatal, which seem to be systematic exceptions to the verbal generalization of external sandhi. No obvious, convincing explanation of this situation suggests itself, except perhaps that these roots are also subject to (the synchronic reflexes of) Bartholomae's Law, with its aberrant lag-assimilation of voiceless stops to preceding voice aspirates (vs. the usual anticipatory voicing assimilation); that is, the fact that these roots are synchronically aberrant already in respect to Bartholomae's Law may have favored their remaining aberrant also in respect to the generalization of external sandhi.

28. This insight is not entirely new: As I realized after coming to the conclusions reached in this paper, it had already been reached in Andersen 1969 (especially p. 813, 819, and 827). However, perhaps because it was made in a paper of interest mainly to historical linguists, it seems to have gone largely unnoticed, justifying (I hope) its restatement and redocumentation in this context.

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THE LANGUAGE OF THE KADARS

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Professor Murray B. Emeneau, wrote in 1969: "The problem still remains as to whether all the languages of the South Dravidian Groups have been discovered. ... Obviously reconnaissance and field work are still needed in the mountainous areas of the far South".¹ M. S. Andronov of the Institute of Oriental Studies, Moscow, writes about the mountainous region of South India: "This area is known to include more than ten other Dravidian languages which have not yet been studied: Badaga, Kuruba, Yerava, Yerukala, Kaikadi, as well as such minor languages as Korava, Irula, Burgandi, and others. Two more Dravidian languages, Bellari and Koraga, spoken by backward tribes (one thousand speakers strong each) have recently been discovered in the spurs of Western Ghats east of Kundapur".² Since 1969 one more Dravidian language has been discovered and described in the hill districts of Kerala: the Paniya language.³ Add the Kada language to this growing list of South Dravidian languages.⁴ In this short study, after identifying the Kadars, I shall give an outline of the phonology and grammar, and a selected vocabulary of the Kada language in order to demonstrate the distinctive characteristics of this little known Dravidian language.⁵

The Kadars who speak the Kada language are inhabitants primarily of the hills of Palghat and Trichur districts. This scheduled tribe is not related to the Wynadan Kadars of the districts of Calicut and Cannanore. The latter speak a dialect of Malayalam. There are a few Kada families in the adjacent forests of Tamilnadu: Topslip (c; 10 families), Thekkady (c. 15 families), and Manampally (3 families). In Kerala they are located in the following areas: Kallyadi (2), Chakkala (6); Parambikulam (16), Kuriarkutty (21), Orikkombankutty (8), Muthirachal (6), Vazhachal (20), Sholayar (10), and Ampalappara (15). Their total strength is about 800. Many of the Kadars possess distinctive negrito features such as platyrrhine

nose, thick lips, and frizzy hair which have led to different speculations with regard to their ethnic origin. The majority of the Kadars are still foodgatherers though several of them are taking up agriculture, a sedentary way of life, and various other vocations. Great many of them still make a living by collecting and vending honey, wax, and other hill produce. The decreasing forest lands are forcing the Kadars to become increasingly dependent on the government and plains people for whom they work and from whom they buy rice and clothes. Today most of them make their homes on the fringes of the reserve forests near highways and the villages of plains people. They live thus on the frontiers, between two worlds, the forests, home of their ancestors and civilization, the brave new world. To feel at home in both cultures, they communicate in the languages of both cultures; they speak the Kada language and Malayalam/Tamil. The Kada children who go to school show greater influence of Malayalam or Tamil on their speech than the illiterate Kadars. It is likely that the Kada language will become extinct in the next 25 years through sheer disuse. Before tragedy strikes this language, it should be recorded and described. Such an attempt will help provide the linguistic basis for any discussion of the ethnic affinities of the Kadars and throw more light on the earlier stages of Malayalam to which the Kada language is closely related.

PHONOLOGY. Analysis of the segmental phonemes of the Kada language gives the following vowel sounds and consonant sounds.

VOWELS

| <i>Initial</i> | <i>Medial</i> | <i>Final</i> |
|--|-----------------------|----------------------|
| [i] : The short, unrounded, high, front vowel. | | |
| When it occurs it is ordinarily preceded by the on -glide [y]. | | |
| yillətta 'no' | kiṭəcca 'got' | kuṭi 'wife' |
| yittəm 'love' | ceerikkU 'to the hut' | pəṭṭi 'hut' |
| yittərə 'so much' | əviṭə 'there' | tuuvi 'child' |
| [ii] : The long, unrounded, high, front vowel. In the initial position this vowel is also preceded by the [y] glide. | | |
| yiiccə 'fly' | biittṭi 'rosewood' | tii 'fire' |
| yiiṅkə 'a fibre' | miin 'fish' | nii 'thou' |
| yiiyəl 'an insect' | miintṭiṭə 'to swim' | cii 'an exclamation' |
| [e] : The short, unrounded, mid, front vowel which in initial position is also preceded by the on-glide [y]. | | |
| yeppə 'when' | peṭṭi 'box' | ninne 'thee' |
| yellaarum 'all' | beṭṭi 'a seed' | əṅke 'there' |
| yeṇtru 'that' | keṭṭiyetU 'take up' | əvaṇe 'him' |

[ee] : The long, unrounded, mid, front vowel which is also preceded by the glide [y] in initial position.

| | | |
|-------------------|----------------|------------------------|
| yeeləm 'cardamom' | beetə 'summer' | poonee 'did you go' |
| yeetU 'who' | peeti 'fear' | aRiñcee 'did you know' |
| yeentru 'how' | beela 'work' | |

[e] : The short, mid, central vowel.

| | | |
|----------------|----------------|--------------|
| əvan 'he' | əppən 'father' | təle 'head' |
| əvaɪ 'she' | kəɪɪən 'thief' | mələ 'hill' |
| ətU 'that one' | bələ 'net' | poonə 'went' |

[a] : The short, low, back vowel which is found only in medial position.

əvaɪ 'she'
 əvan 'he'
 maram 'tree'
 kuɪam 'picher'

[aa] : The low, back vowel which is long and which appears in all three positions.

| | | |
|-------------------|-------------|----------------|
| aanə 'elephant' | kaal 'leg' | amma 'mother' |
| aatU 'goat' | paal 'milk' | appaa 'father' |
| aatətə 'to dance' | baal 'tail' | baa 'come' |

[o] : The short, mid, back, rounded vowel which occurs initially and medially.

| | |
|------------------|-------------------|
| ori 'one' | poɪi 'powder' |
| onɪiyə 'alone' | moɪɪU 'egg' |
| oppəm 'together' | koñcəm 'a little' |

[oo] : The long, mid, back, rounded vowel.

| | | |
|-------------------|---------------|------------------------------|
| ootətə 'to run' | pootə 'to go' | poo 'go' |
| oolə 'palmleaf' | coosə 'blood' | oo 'Yes' |
| oonti 'chameleon' | rootU 'road' | koo 'interrogative particle' |

[u] : The short, high, back, rounded vowel.

| | | |
|----------------|---------------|-------------|
| uccə 'noon' | kuñci 'child' | kuru 'seed' |
| ummə 'kiss' | kuɪti 'child' | moɪɪu 'egg' |
| uɪuppu 'dress' | tuppU 'spit' | |

[uu] : The long, high, back, rounded vowel which occurs only initially and medially.

| | |
|--------------|--------------------|
| uumən 'dumb' | puulə 'a tree' |
| uulə 'sap' | kuuran 'an animal' |
| | tuurem 'distance' |

[U] : The short, high, back, unrounded vowel which occurs only in final position.

muttU 'bead'
puuvU 'flower'
onɪU 'one'
teekU 'teak'

[ö] : The long, rounded, mid, front vowel which is the equivalent of the German umlaut ö as in *Goethe*. *Pöschl*. This sound occurs before the [y] glide as in *köyə* 'fawn' and *köyvutə* 'to cry'. The difference between [ö] and [eə] can be noticed by contrasting *köyə* and *köyvutə* with *keet̪ta* 'heard' and *keel̪pput̪ə* 'to hear'.

CONSONANTS

[p] : The voiceless bilabial stop which appears initially and medially with length and in clusters.

| | |
|---------------------|---------------------------------|
| pet̪ti 'box' | kuppi 'bottle' |
| pe <u>ɲ</u> ə 'pen' | cop <u>ɲ</u> ə <u>m</u> 'dream' |
| pəttU 'ten' | kəppə 'tapioca' |
| | tuppəl 'spittle' |

[b] : The voiced bilabial stop which occurs initially.

beliyə 'big'
bəRəRa 'to come'
baaraatə 'don't come'

[t] : The voiceless labio-dental stop which occurs initially and medially with length.

təttə 'a bird'
taaraavU 'will not give'
cəttam 'sound'

[t̪] : The voiceless alveolar stop which occurs often intervocalically.

kaatt̪U 'wind'
paatt̪ə 'cockroach'
maatt̪əm 'change'
keett̪əm 'ascent'

[ɖ] : The voiceless retroflex apico-velar stop which occurs medially and with length.

povət̪ə 'to go'
Keelpput̪ə 'to hear'
yitt̪əm 'love'
cəɳkkətt̪am 'fatigue'

[c] : The voiceless apico-alveolar affricate which occurs initially with length and in clusters.

| | |
|----------------------|---------------------|
| cattə 'dead' | pəccə 'green' |
| cirippuṭə 'to smile' | kuñci 'child' |
| caati 'kin' | vRicciḱəṃ 'a month' |
| ciittə 'cold' | puuccə 'cat' |

[k] : The voiceless dorso-velar stop which occurs initially and medially with length and in clusters.

| | |
|--------------------|--------------------|
| kaaḷaaṇ 'mushroom' | cəkkə 'jack fruit' |
| kaal 'leg' | cəkti 'strength' |
| kRimi 'insect' | bəkkU 'edge' |

[m] : The bilabial nasal which occurs in initial, medial, and final positions.

| | |
|--------------------|--------------------------------|
| maavU 'mango tree' | əmma 'mother', maram 'tree' |
| maṇ 'soil' | cempU 'copper' nakam 'nail' |
| maṇatU 'mind' | tumpi 'dragonfly, kuḷam 'pond' |

[n] : The apico-dental nasal which occurs in initial position only.

| |
|-----------------|
| naaṇ 'I' |
| nəllətu 'good' |
| naatU 'country' |

[ṇ] : The apico-alveolar nasal which occurs only medially and finally.

| | |
|-----------------|----------------------------|
| aaṇə 'elephant' | naaṇ 'I' |
| paani 'dish' | maan 'deer' |
| kəṇṇi 'a month' | əvan 'he' |
| | kəṇṇippen 'unmarried girl' |

[ṅ] : The retroflex apico-velar nasal which occurs only in medial position and final position.

| | |
|------------------|-------------|
| pəṅam 'money' | kəṅ 'eye' |
| təṅṇi 'water' | məṅ 'earth' |
| bəṅṅəṃ 'bigness' | kaaṅ 'look' |

[ṁ] : The fronto - palatal nasal which occurs initially and medially. The sound is never geminated : it often occurs with [c.]

| | |
|--------------------|------------------|
| ṇaaṇ, 'I' | pəṇcaarə 'sugar' |
| ṇəṇṭU 'crab' | əṇcU 'five' |
| ṇaaṅkal 'we' | məṇcU 'dew' |
| ṇaaRaaccə 'sunday' | pəRaaṅcə 'said' |

[ṅ] : The dorso-velar nasal which occurs only medially.

| | |
|------------------|---------------------|
| maṅṇaa 'mango' | pəṅkU 'share' |
| teenṇa 'coconut' | təṅkiṇə 'pregnant' |
| | baaṅkiṇə 'finished' |

- pəyaRU 'beans'

[v] ; The voiced back glide, which occurs initially and medially. The initial [v] becomes [b] in the speech of most Kadars except the educated.

vaa > baa 'come'

avan̄ 'he'

vərə > bərə 'line'

aval̄ 'she'

covvə 'Tuesday'

[y] : The voiced front glide which occurs initially, medially and finally.

yaayaaccə 'Thursday'

baayəl 'door'

kaayu 'fruit'

yooyippU 'agreement'

ceyvutə 'to do'

kəy 'arm'

ney 'butter'

GRAMMAR

While the Kada language retains the essential grammatical features of the Dravidian languages, it has its unique features. An examination of the following grammatical aspects will demonstrate how true the above statement is.

THE NOUN :

Gender : There are only two genders; masculine and feminine both semantically and grammatically. Contrastive prefixes such as *aan-/pen-* and *caattən-pitə-* are used to denote male and female species of animate beings : e. g., *aan-puli* and *pen-puli*.

There is no special morphological suffix to determine the gender of things. However, under the influence of Malayalam, there is a tendency to use pronominal suffixes in some derivative nouns such as *Narayanan* and *Nani*, *teevan* 'god' and *teevi* 'goddess'. The gender distinction has no effect on the various forms of the verb.

NUMBER

Though there are two numbers, singular and plural, in the Kada language, there are no special plural suffixes for nouns. They Kadars use the cardinal number or indefinite numerical adjectives to indicate the plural number, e. g., *ori mən̄iyən*, *rən̄tu mən̄iyən*, *tulaam mən̄iyən* 'many men',

CASE

Substantival declension in the Kada tongue is also effected by suffixes as in the other Dravidian languages. The core of the declensional system of the Kada language is formed by Nominative, Genitive, Dative, Accusative, Instrumental, Locative, and Lative Cases.

| Case | Suffix | Paradigm of <i>məram</i> 'tree' |
|--------------|---------------|---------------------------------|
| Nominative | ∅ | <i>məram</i> |
| Genitive | - <u>n</u> | <i>mərat<u>n</u></i> |
| Dative | -kU | <i>mərat<u>n</u>kU</i> |
| Accusative | -e | <i>mərame</i> |
| Instrumental | -t <u>t</u> U | <i>mərat<u>t</u>tU</i> |
| Locative | -l | <i>mərat<u>l</u></i> |
| Lative | -tU | <i>mərat<u>t</u>U</i> |

The lative case denotes direction of motion : *to* and *through*.

The ablative case to indicate *from* is expressed by the suffix-*l* and the postposition *bəccirU* as in *məratl bəccirU* 'from the tree'.

The vocative is expressed by lengthening the final vowel of the noun-stem or by suffixing -*ee* as in *kuñcii* and *məramee*.

The comitative case is expressed in three different ways:

Genitive of noun plus the postposition -*melləm* as in *raamənu melləm*.

Genitive of noun plus the postposition -*baaŋke* as in *raaman baaŋke* : with verbs signifying 'asking' and 'speaking' the indirect object is expressed by the object + gen + *baaŋke* :

Nominative of noun plus the postposition -*aayire*. Very seldom one can notice the intrusive -*al* for the ablative case, though there is no passive voice. It is to be added that in declension euphonic sounds are often added to the base in view of the given phonetic environment.

The noun bases can be grouped into various classes on account of the various terminations of the bases.

THE PRONOUN

The pronominal group consists of personal, reflexive, demonstrative, interrogative, and indefinite pronouns.

Personal pronouns.

The Kada language distinguishes three persons (first, second, and third), two numbers, and in the third person two genders.

| singular | plural |
|---|---|
| First person : <i>naa<u>n</u>/ñaa<u>n</u></i> | <i>naankə<u>l</u>/ñaa<u>n</u>kə<u>l</u></i> |
| Second person : <i>nii</i> | <i>nuum</i> |

| | | | |
|----------------|-------|-------|-------------|
| Third person : | masc. | əvan | m + f: əvu |
| | | yivan | |
| | fem. | əval | m + f: yivu |
| | | yival | |

The distinction between inclusive and exclusive pronouns of the first person plural is also found in the Kada language: *naam* includes the people whom the speaker addresses whereas *naankə!* excludes them.

The personal pronouns are also inflected the way nouns are.

The second person plural is not used in the honorific function of the singular. The second person singular is used to address every one except father, mother, and husband. The father, for instance, is addressed: *əppən yenke pooṭe?* father, where do you go?

Reflexive Pronoun

Reflexive pronouns in the accusative case are formed by the suffix *-vaan* to the corresponding accusative form of the personal pronoun: *enṇevaān* 'myself' *eṅkə!əvaān* 'ourselves'. The reflexive pronominal form of the third person *taan* has only a limited use as in *təṇṇaāl taan* 'by himself'. But 'Raman struck himself' is translated as *raaməṇe raaməṇaāl əṭiccə*.

Demonstrative Pronouns

The demonstrative pronouns distinguish three degrees of spatial distance from the speaker or the addressee. They are *ətu* 'that', *yitu* 'this' *ullootu* 'medial' in the singular and *əvu*, *yivu*, *ulloovu* in the plural without any distinction of gender. They are also declined like the personal pronouns. They have the same function as nouns and personal pronouns in discourse.

Interrogative Pronouns

There are only two interrogative pronouns: *yeeṭu* 'who' and 'which' and *yentətu* 'what' without distinction of number. The former refers to both male and female of the humankind whereas the latter refers to everything else. The interrogative pronouns are also declined like the personal pronouns. 'What is your name?' in the Kada language is *nin peer yeenṭru* 'How is your name?'

Indefinite Pronouns

The two distinct declinable indefinite pronouns are *pəleeyaa!* 'many people' and *pəleetu* 'many things'. The

function of indefinite pronouns are more often performed by indefinite adjectives *tulaam* 'many, much', *cəriyaanə* 'many, much', and *koñcəm* 'some, few' either by themselves or in conjunction with nouns which they modify.

THE ADJECTIVE

Adjectives play a major role in the Kada Language. They are used more often attributively than predicatively; attributively: *nəllə kuñci* 'good child' *pəccə puuvu* 'green flower'; predicatively: *əvan nəllətaan* 'he is good' When used predicatively, the adjective has the *-tu* ending and appears to be used as a substantive.

Indeclinable demonstrative adjectives such as *ay*, *yii*, and *ulloo* are formed from the demonstrative pronouns.

Attributive adjectives with nouns perform the function of attributive pronouns: *akkiṭa maṇiyən* 'such' or 'this kind of a person' and *yikkiṭa maṇiyən* 'such' or 'this kind of a person'.

Positive adjectives are formed by adding the suffix *-aali* to various parts of speech: *cəntemaali* 'beautiful', *əyakaali* 'handsome', *kəṇiyaali* 'sweet', *pəṇi ceykəyaali* 'worker', *varikəyaali* 'coming', *kəypəyaali* 'bitter'.

Negative adjectives are formed by the use of the suffix *-illaalə* as in *cəntəmillaalə* 'ugly', *kəṇiyillaalə* 'non-sweet', *əyəkillaalə* 'dowdy', *kəypəyillaalə* 'non-bitter'.

Adjectives ending in *-aali* are often used predicatively: *əven pəṇiyaali-yaan* 'he is a labourer' and as such they function also as nouns.

NUMERALS

There are two type of numerals: cardinal and ordinal.

The cardinal numerals of the Kada language are like those in Malayalam except for *oṇtu* 'one' and *muuṇtu* 'three'. The Malayalam *oru* becomes *ori* in the Kada language.

The ordinal numbers of Malayalam are seldom used. Instead they prefer to use the adverbial forms: *aatyəm* 'firstly', *pinne* 'secondly', *āantəru pinne* 'thirdly', and so on.

THE VERB

The Kada language distinguishes the positive-negative categories, mood, tense, and person, and number in the inflection of verbs as well as participles, infinitive, conditional participles, and verbal nouns.

The negative counterpart is found for almost all positive forms of the verb. One can distinguish the following moods; indicative, imperative, optative, permissive, conditional, and obligatory.

The present tense (or present-future), past tense, future tense, present perfect tense, and past perfect tense can be recognized in the Kada speech.

Only the second person has inflectional endings different from the other persons.

The same form is used for singular and plural except for the imperative second person plural.

The paradigm given below will illustrate the special features of the Kada verbs.

THE INDICATIVE MOOD : *yeṭu* - 'to take'

| Positive | | Negative | |
|---|--------------------------------|----------------------------------|------------------|
| <i>Present or present future</i> | | <i>Present or present future</i> | |
| <i>singular</i> | <i>Plural</i> | <i>singular</i> | <i>Plural</i> |
| First : <i>yeṭuppaata</i> | <i>yeṭuppaata</i> | <i>yeṭukatta</i> | same |
| second : <i>yeṭuppaate</i> | <i>yeṭuppaate</i> | <i>yeṭukatte</i> | <i>yeṭukatte</i> |
| third : <i>yeṭuppaata</i> | <i>yeṭuppaata</i> | <i>yeṭukatta</i> | same |
| <i>Future</i> | | <i>Future</i> | |
| First : <i>yeṭuppiⁿaata</i> | <i>yeṭuppiⁿaata</i> | <i>yeṭukavu</i> | same |
| second : <i>yeṭuppiⁿaate</i> | <i>yeṭuppiⁿaate</i> | same | same |
| third : <i>yeṭuppiⁿaata</i> | <i>yeṭuppiⁿaata</i> | same | same |
| <i>Past</i> | | <i>Past</i> | |
| First : <i>yeṭutta</i> | <i>yeṭutta</i> | <i>yeṭukaataana</i> | same |
| second : <i>yeṭutta</i> | <i>yeṭutta</i> | same | same |
| third : <i>yeṭutta</i> | <i>yeṭutta</i> | same | same |

THE IMPERATIVE MOOD

(nii) *yeṭu* (nuum) *yeṭin* (nii) *yeṭukaalam* (sing)
(nuum) *yeṭukaateen*

The optative mood of *bəR* 'to come' *nəllə kaalam bəraṭṭu*, and of *yeṭu* is *yeṭukaṭṭu*.

The permissive mood of *yeṭu*-is *nii yeṭukəyaanən ninakku yeṭukəyaan* 'you may take'; *naan poovən* means 'let me go'

The conditional mood of *yeṭu* is *yeṭumə*.

naan yeṭumə nii vəruvaata ? 'if I take will you come'

The same form is used for present, future, and past for all persons and numbers. The forms *yeṭuttaal* and *yeṭukil* are also used.

The obligatory mood is expressed by the suffix *il* which is added to the stem and the particle *cəri* as in
nii yippaan pookil cəri – ‘you must go now’
yenakku yippaan pookil cəri – ‘I must go now’

The progressive aspect of the present tense is expressed by the particle *taan* which is added to the present tense marker.
naan yeṭuppaatātaan – ‘I am taking’

The present perfect tense is formed by the addition of the particle *-taan* to the past tense marker. *naan yeṭuttetaan* ‘I have taken.’

The past-perfect tense is formed by the appendix – *aañcə* or the auxiliary *vaankinə* to the past form: *naan tinṭə!aañcə* or *naan tinṭu vaankinə* ‘I had eaten’

One can distinguish the present participle used as adjective as in *bəRəRə veṇṭi* ‘the coming car’ and similarly the past participle as in *bəntə vəṇṭi* ‘the car that come’. There is also the perfect participle, of the verb: *əvan tinṭiru poonə* ‘having eaten, he left’. The suffix *-ru* is the formant of this frequently used verbal participle.

The infinitive is formed by the addition of the suffix *-aan* to the verb-stem: *piṭippaan* ‘to hold’, *aaṭuvaan* ‘to dance’ *kaanpən* ‘to see’. As usual there occur phonological changes in the formation of the infinitive.

To form the present conditional verbal participle, the Kadars add the suffix *-il* to the verb-stem as in *kaanṭil pəRəvināaṭa* ‘if I see, I will let you know’. The past conditional verbal participle is formed by the addition of the suffix *-aal* to the past tense form of the verb. *Kəṇṭaal pəRəvināaṭa* ‘If I see, I will let you know’. The former expression is used irrespective of tense differences and is far more common than the latter.

There are two types of verbal nouns of which the participial nouns formed by the addition of the suffix *-aali* to the verb stem are more common: *pookəyaaṭi* ‘the one going’, *bərikəyaaṭi* ‘the one coming’. The second one, gerund, is formed by the suffix *-ətu* which is appended to the present tense form of the verb, *yirippiṭətu* ‘sitting’, *təṇṇi aaṭəṭətu* ‘bathing’.

THE ADVERB

In the Kada language there is a number of indeclinable words which perform the function of adverbs. Some of them have the dative case ending: *əviṭəkkū* - 'thither', while others are nouns in the nominative case: *yintu* - 'today'.

These adverbs can be classified into adverbs of time, place and manner and onomatopoetic adverbs.

The following are adverbs of time: *yippə* 'now' *yeppə* 'when', *naale* 'tomorrow' *yivṭəyən̄tu* 'day before yesterday', *yeppəyintaaḷum* 'whenever', *aan̄təppə* 'then', *yeppəyumaan̄* 'always', *muRaankiru* 'late', *mukaattu* 'early'.

Those given below are adverbs of place: *yivṭe* or *yinke* 'here', *əviṭe* or *ən̄ke* 'there', *yeṇke* 'where', *aviṭe beccəru* 'thence', *yevṭəkkintaaḷum* 'whithersoever', *yivṭe beccəru* 'hence' *ən̄kiṭu* 'on that side'.

Some adverbs of manner are: *yeen̄tru* 'how', *yiin̄tru* 'this way' *aan̄tru* 'that way', *yin̄piṭə* 'this way', *atuṇku been̄tru* 'therefore', *melle* 'slowly', *beliyəkkə*, 'loud' *atikəmaayiru* 'much', *okkaan* 'fully', *cəriyaan̄ə* 'very', *cəṇkəṭṭəppṭiyaate* 'carefully', *məṭiməṭiyaay* 'carelessly', *on̄tiyaan̄* 'alone', *pəṭəmaan̄* 'for nothing'.

The onomatopoetic words, which imitate natural or artificial sounds, may appear as single or repetitive.

Among the single imitative words, which are comparatively fewer in number, are the following: *kelunkəru* 'referring to the sound of falling metal; *toṭiin* 'sound in the water' when a piece of rock is thrown, *cilərine* 'sound of a piece of metal falling on the floor', *muṭukkən̄ə miṭṭita* 'referring to a startling sound'.

There are many reduplicative onomatopoetic words:

cəṭərucəṭəray 'refers to rain', *aaRi aaRi* 'cry of children', *meymeyyaay* 'softness', *məṛəməraatliru* 'stiffness', *cəṭṭəne* *cəṭṭəne* 'quickness', *muṭimuṭiyaay* 'level ground', *ooṭəru-caaṭəru* 'fast moving children', *kuttukuttu* 'sneaking away', *pukkupukku* 'swimming'

PARTICLES

The particles can be either proclitics or enclitics

The only proclitics are the ones that are derived from the demonstrative pronouns and are used as demonstrative adjectives: *ay-*, *aii-*, and *ulloo-*

There are various types of enclitics in the Kada language.

The conjunctive enclitics *-um* 'and' and *-oo* 'or' are frequently used as in Malayalam.

The verbal clitic *-taan*, when used with the present tense, forms the present progressive tense and when used after the past tense, forms the present perfect tense.

There are several interrogative enclitics:

-ee: *nin kəlyaaṇəm kayñcee* ? 'did your wedding take place?'

-oo: *əvu aaṇpiḷḷəyoo peṇṭaaṭṭippenṇoo* ? 'Are they boys or girls?'

-koo: *əvaḷ bəntəkoo* ? 'did she come?'

-yellee: *nii yini yeṇke poote* ? 'Where do you go?'

The most prominent enclitic is the expletive *-aan* which is heard in almost every sentence of the Kada language.

There are four emphatic enclitics: *-cəri*, *-yikkə*, *-aan*, and *bəl* which have meaning only in the context in which they are used.

POSTPOSITIONS

Postpositions perform the function of the prepositions of the Indo-European languages. Some of the post positions are *beeṇṭiru* 'for' with dative, *muvaattu* 'before' with dative, *piRaakku* 'after' with dative, *bəre* 'for, till' with nominative, *yillaatə* 'without' with nominative, *maatiri* 'like' with genitive, *baaṇke* 'to' with verbs of 'speaking' and genitive. As noted above, the postpositions require objects in different cases.

INTERJECTIONS

The characteristic interjection of the Kada people is *əppiyee* meaning fear.

ətee expresses joy; *əyyoo* expresses pain, surprise, and joy; *loo* is used to capture attention; *aahaa* shows disgust.

VOCABULARY

With the other Dravidian languages the Kada tongue shares a common vocabulary which shows the closest relationship to Malayalam. In spite of the similarities there are numerous differences. Some interesting vocabulary items are the following:

| | | | |
|----------------|-------------|------------|---------------------|
| piraali | - tongue | kott̥i | - mouth |
| cuucci | - breasts | kuraal̥ | - throat |
| kun̥tukə | - heart | kottaan̥i | - armpit |
| yelumpu | - bone | kuRaakU | - thigh |
| kəRRi | - flesh | muul | - navel |
| tuuli | - small | yiRaappə | - shoulder |
| ulloo | - that | kəṇaarU | - wart |
| laak | - to stand | p̥ii | - excrement |
| mən̥ivU | - star | yiiḷa | - cough |
| tuuvi | - child | ciiraappU | - mucus of the nose |
| əlaappU | - language | pəruvU | - hair |
| kəvalə | - hill top | turaala | - lungs |
| baan̥ piraacci | - dawn | paaRəppaal | - shadow |
| kaaRvaan̥ | - sky | mərutU | - cock's comb |
| ciilaan | - snail | yiRaakəl | - wing |
| ciiraavU | - knife | peeṇkaari | - comb |
| kətt̥U | - pain | ula | - to suffer |
| ciirə | - suffering | biilə | - to whistle |
| təṇkina | - pregnant | peruk | - to burn |
| vəyri | - pregnant | pərivU | - disease |

The list of words given above will help reopen the discussion on the ethnic origins of the Kadars. Linguistic evidence is probably the clue to unravel the mystery enveloping the original home of the Kadars. Foreign words in their vocabulary will point to the home of their origin as we know from the study of the Gullah dialect of the Negroes of the coastal area Georgia and South Carolina that their ancestors came from West Africa because of the presence of many words from the West African languages.

To probe further into the problem of the distinctiveness of the Kada language, one may make use of the word list compiled by Morris Swadesh and the criteria developed by him for distinguishing languages and dialects from one another.

| | | | |
|------|-----------------|--------|----------------|
| I | naan̥/ṇaan̥ | skin | tool |
| you | nii/nuum* | flesh | kəRRi* |
| we | naaṇkəḷ/ṇaaṇkəḷ | blood | coorə |
| this | yii | bone | yelumpu* |
| that | ulloo* | grease | neyn |
| who | yetu | egg | moṭṭu, yeḷəru* |
| what | yentən̥ | horn | komp̥u |
| not | yillətta* | tail | baal |

| | | | |
|--------|---------------------------|----------|--------------------------------|
| all | yellaa | feather | tuuvəru* |
| many | cəriyaanə* | hair | pəruvU* |
| one | on <u>t</u> u | head | talə |
| two | rən <u>t</u> u | ear | kaatu |
| big | bəliyə | eye | kə <u>ŋ</u> |
| long | nii <u>l</u> əmaali | nose | muukkU |
| small | tuuli* | mouth | ko <u>t</u> ti* |
| woman | pen <u>ŋ</u> naal | tooth | pəl |
| man | aan <u>p</u> i <u>l</u> ə | tongue | piraali* |
| person | aal/ <u>m</u> əniyən | claw | nakam |
| fish | mi <u>i</u> n | foot | paatəkkaal |
| bird | pu <u>l</u> * | knee | muyaŋkaal |
| dog | naay | hand | kəyU |
| louse | peen | belly | bəyiru, pə <u>l</u> lə |
| tree | məram | neck | kəy <u>t</u> tU |
| seed | muttu* | breasts | cuuci* |
| leaf | yilə | heart | ku <u>ŋ</u> tu <u>k</u> ə* |
| root | beerU, tee <u>t</u> təm* | liver | yiiraalU* |
| bark | tool | drink | ku <u>t</u> i- |
| eat | ti <u>n</u> - | cloud | mə <u>ŋ</u> cU* |
| bite | k <u>ə</u> <u>t</u> i- | smoke | tiippukə |
| see | kaan- | fire | tii |
| hear | keel- | ash | caarəm |
| know | əRi- | burn | beev-* |
| sleep | uRaa <u>ŋ</u> k- | path | bəyi |
| die | caav- | mountain | ku <u>n</u> tU |
| kill | kol- | red | ceppəraali* |
| swim | mi <u>i</u> n <u>t</u> - | green | pəccə |
| fly | paaR- | yellow | mə <u>ŋ</u> cəl |
| walk | nə <u>t</u> a- | white | vellə |
| come | bəR- | black | kərumə <u>n</u> aa <u>l</u> i* |
| lie | ki <u>t</u> a | night | yiru <u>t</u> tU/yiraavU* |
| sit | yiri- | hot | bəkkə* |
| stand | laak-* | cold | ci <u>i</u> t <u>t</u> ə* |
| give | ko <u>t</u> u- | full | niRaa <u>ŋ</u> cə |
| say | əlaapp- | new | putu |
| sun | neerəm* | good | nəllə |

| | | | |
|-------|-----------|-------|----------------|
| moon | nilaavU* | round | uruḷuppəyaali* |
| star | məṇivU* | dry | uṇaantə |
| water | taṇṇi* | name | peerU |
| rain | məyə | | |
| stone | kal | | |
| sand | məṇal | | |
| earth | məṇ/puumi | | |

Morris Swadesh writes:

One method of estimating time is that of lexical statistics, a new approach which has not yet been fully worked out but which is already a considerable improvement on unaided subjective estimates. It employs a "test list" of fundamental vocabulary items whose rate of retention has been measured in historically documented languages to be on the average 81% after 1000 years, with a normal deviance of about 2%. Languages diverging out of contact with each other may be expected to agree by the square of their retention. That is, if each of two diverging dialects retains 81% of the original common vocabulary and if they had no influence upon each other since the time when they were essentially the same language, their probable agreement will be 81% of 81%, or 66%. In Salish, where some lairs of languages show as little as 10% of common vocabulary, we calculate that the stock started to diverge some 55 centuries ago.⁷

Most scholars would agree that the glotto-chronological method is a useful tool to indicate "the historical sequence in which dialect differences developed".⁸

There does not seem to be any general agreement on the criteria used to identify cognate words and similar words. Different scholars use different criteria and arrive at different counts.⁹ I accept the Kada words which are semantically different, which show significant phonological variation from, and which are not obviously derived from the same root, as dissimilar words. These three criteria may be found individually or collectively in each item. By applying these criteria I have counted 30 dissimilar items. They are marked with asterisks. Because Malayalam and the Kada language retain about 70% of the original common vocabulary they were essentially the same language about ten to eleven centuries ago. Probably since then Malayalam underwent successive influences by Sanskrit and Tamil while the Kada

language remained more conservative in the relative isolation of the Kada Community.

The criterion of mutual intelligibility should also be used to determine whether the Kada language and Malayalam are today really distinct languages rather than dialects of the same language. Morris Swadesh writes: "Intelligibility depends on general agreement in the aggregate of individual traits, and there is no basis for counting as a single language speech variants that do not provide a reasonable degree of mutual intelligibility".¹⁰

Tests show that the Kada language when spoken by the Kadars is almost totally unintelligible to Malayalees and Tamilians. What account for this problem of unintelligibility are the phonological, grammatical, and lexical differences found in both languages.

Therefore, the Kada language is a language in its own right and, on account of its close similarities with Malayalam, it belongs to the South Dravidian group.¹¹ In my future book on the Kadars I hope to explore further the place of the Kada language in the Dravidian linguistic family and its relation to the earlier forms of Malayalam; I will also examine the non-Dravidian origin of some other Kada words and their linguistic and anthropological implications.¹²

NOTES

1. Murray B. Emeneau, "The Non-Literary Dravidian Languages," *Current Trends in Linguistics*, V (1969), 342.
2. *Dravidian Languages*, translated by D. M. Segal (Moscow, 1970), p. 22. See also P. K. Padmanabhan Nair, "Efatese: A Language of Dravidian Origin," *Proceedings of the First All-India Conference of Dravidian Linguists* (Trivandrum, 1971), p. 546-549.
3. P. Somasekharan Nair, "A Phonemic Outline of the Paniya Language", *Pratibhanam: A Collection of Research Papers Presented to Dr. P. K. Narayana Pillai* (Trivandrum, 1970) pp. 241-246. See also P. Somasekharan Nair, "Morphological Markers of Number, Gender and Case in the Paniya Dialect," *Ibid.* pp. 485-488.

4. It was at the suggestion and with the encouragement of Professor V. I. Subramoniam of the University of Kerala that I undertook the present study. I wish to record here my gratitude towards him.
5. A longer study of the Kada language with a descriptive Grammar and vocabulary will soon follow this article.
6. See U. R. Ehrenfels, *Kadar of Cochin* (Madras, 1952), p. 6 and p. 270. See also A. A. D. Luiz, *Tribes of Kerala* (New Delhi, 1962), pp. 59-64; Nettur P. Damodaran, *Adivāsikaḷuṭe Kēraḷam* (Malayalam) (Kottayam, 1974) pp. 161-167.
7. Morris Swadesh, "Mosan I: A Problem of Remote Common Origin", *International Journal of American Linguistics* XXI (1953), 41.
8. Sarah C. Gudschinsky, "Lixico-Statistical Skewing from Dialect Borrowing", *IJAL*, XXI (1955), 149.
9. See Gordon H. Fairbanks, "A Note on Glotto Chronology," *IJAL*, XXI (1955), 116-120.
10. Morris Swadesh, *The Origin and Diversification of Language*, edited posthumously by Joel Sherzer (London, 1971), p. 16.
11. In the light of the evidence presented in this article, I disagree with Dr. U. R. Ehrenfels, *Kadar of Cochin*, p. 257: "Kadar no doubt speak Tamil"; p. 6: "The language of the Kadars is a corrupt form of Tamil mixed with Malayalam elements." Dr. Ehrenfels recognizes a linguistic problem: "From at a distance single words cannot be easily understood because the intonation of the Kadan-Tamil is quite distinctly distinguished not only from the modern Sanskritized Malayalam of the West Coast, but also from the local Tamil dialects spoken in the rural areas round Pollachi on the eastern border of the Kadan hills in Cochin" (p. 257).
12. Dr. Ehrenfels makes the following observations: "Kadan lingo is one of the few characteristics in Kadan culture which seems consistently to resist the acculturation process" (p. 269); "The language of the Kadar is a corrupt form of Tamil... probably indicating a former language of their own, which has unfortunately not been preserved" (p. 6); "What may be of importance... is the possibility of the survival of a non-Tamilian, possibly non-Dravidian submerged language" (p. 71).

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3. Ehrenfels, U. R. 1952. *Kadar of Cochin*. Madras : Madras University Publications.
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REPLY TO THE CRITICS OF THE BLOOMFIELDIAN COUNTERREVOLUTION

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(1) Introduction. Most scholars agree that Chomsky's monograph, *Syntactic Structures*, initiated a revolution in linguistics. Chomsky offered a new perspective on language study, called *Transformational Generative Grammar (TGG)*, which differed fundamentally from the old perspective, called *Taxonomy (TAX)*, with respect to the goals and methods of research and the types of theories which are offered to explain language phenomena.

Some people think that the revolution caused by *Syntactic Structures* is essentially over and that all linguists who say they are working in TGG have accepted Chomsky's generative theories and generative methods. There is evidence against this position. Let us examine some general phenomena associated with scientific revolutions and then return to linguistics.

In studying scientific revolutions, and in general, how ideas change, many of the facts we unearth may strike us as paradoxical and contradictory. For example, Kuhn, in his interesting study of scientific revolutions, point out that it is not unusual for some of the leading protagonists of a new scientific movement to be actually protagonists only in words and not in deeds. In some cases, a protagonist of the new movement may not be a practicing adherent of the creed he champions, and in other cases, he may in his actual practice deny the basic assumptions of the new movement while using the results and formulations provided by the new movement. Discussing the development of ideas following the publication of Copernicus' *De Revolutionibus*, Kuhn points out that many of the astronomers who applauded Copernicus' work were actually ambivalent in their allegiance to the basic ideas of Ptolemy and Copernicus:

But the success of *De Revolutionibus* does not imply the success of its central thesis. The faith of most astronomers in the earth's stability was at first unshaken. Authors who applauded Copernicus' erudition, borrowed his diagrams, or quoted his determinations of the distance from the earth to the moon, usually either ignored the earth's motion or dismissed it as absurd. (Kuhn 1957: 186)

...Many astronomers found it possible to exploit Copernicus' mathematical system and to contribute to the success of the new astronomy while denying or remaining silent about the motion of the earth. (Ibid: 187)

The concept of a scientist using the results of a new movement while denying the central thesis of the new movement is not restricted to astronomy. Poincaré, in discussing the scientific revolution caused by Einstein in mathematical physics, points out that many scientists, although they professed to accept the basic assumption that space was relative, still continued in their work to think as though space were absolute. Poincaré states:

Everyone knows that space is relative, or rather everyone says so, but how many people think still as if they considered it absolute. Nevertheless, a little reflection will show to what contradictions they are exposed. (Poincaré: 10)

Apparently in astronomy and in physics there were some researchers who contended they were working in the post-revolutionary framework but who actually presented work which denied the basic assumptions of the post-revolutionary perspective. Could the linguistics revolution be similar to the revolutions in astronomy and physics? What would be a case of a linguist who contended to be working within the generative framework but actually was denying the main theses of generative grammar? I can here only sketch the nature of the study to which such questions would lead and suggest that such a study would shed great light on many of the current trends in linguistic research.

The main thesis presented in 'Generative Semantic Methods: A Bloomfieldian Counterrevolution' is that the revolution in thought caused by Chomsky 1957 has essentially just begun and that the main points advanced by Chomsky have yet to become the practice of the wide majority of professing transformational generative grammarians. My conclusion was, when I wrote the article, and still is now, that Kuhn's words about the astronomical revolution would, if rephrased as follows, hold for the linguistic revolution:

But the success of *Syntactic Structures* does not imply the success of its central theses. The faith of many linguists in the goals and methods of taxonomic analysis remains unshaken. Linguists who applauded Chomsky's goals and methods, borrowed his theoretical ideas about the complex structures of sentences, or quoted his transformational analyses, usually either ignored the basic concept of generative grammar or dismissed it as unworkable.

Many linguists found it possible to exploit Chomsky's transformational system (especially the ideas about the complex structures of a sentence) and to contribute to the success of the new transformational linguistics while denying or remaining silent about the concept of generative grammar, i.e. while never providing any descriptive mechanisms to assign the complex syntactic structures to sentences.²

(2) Theories of scientific revolutions. We can best understand McCawley's comments by analyzing his views of scientific revolutions. McCawley concludes his paper with this paragraph:

Dougherty's statements about revolution and counterrevolution suggest that he has wrongly identified the kind of revolution that Kuhn is concerned with and the kind that Mao is concerned with. A scientific revolution is closer to a technological revolution than to a political revolution. In the technological revolution in which ballpoint pens have displaced fountain pens, there was no instant consignment of fountain pens to the trash heaps. Rather, a tremendous demand for ballpoint pens developed and the demand for fountain pens decreased considerably, though to nowhere near zero. This is just like a scientific revolution: the older theory lives on, though with somewhat fewer adherents and a much smaller share of the market for ideas. In asking such questions as (p. 278) 'What ever became of those linguists who were thoroughly trained in taxonomic methodology?', Dougherty errs in assuming that they aren't in general just openly continuing to do taxonomic linguistics. The absolute number of taxonomic linguists has probably changed very little in the last fifteen years, though the fraction of linguists doing taxonomic linguistics has decreased drastically due to the drastic increase in the number of people in the field. No colony of displaced persons yearning for their overrun taxonomic homeland need be postulated to explain where they went. A final thought: was it counterrevolution when some manufacturer of ballpoint pens started manufacturing refills? (p. xxx).

McCawley's idea that a scientific revolution is like a technological revolution, while interesting in that it gives us a glimpse of McCawley's understanding of science, has no empirical support. This curious view of scientific revolutions contradicts the rather detailed studies of Kuhn – an author McCawley cites. But more importantly, McCawley's view overlooks the crucial point made by just about every philosopher and historian of science, that in a science, acceptance of a theory is based on its power to explain phenomena and not on mere exigencies of the marketplace. Let us examine these points.

McCawley offers not a shred of evidence to substantiate his claim that a scientific revolution is like a technological revolution; more specifically, that the replacement of a scientific theory T_1 by another theory T_2 is parallel to the displacement of fountain pens by ball point pens.³

McCawley suggests that I have wrongly identified Kuhn's and Mao's concepts of revolution. I believe, however, that the quote from Kuhn 1957, I presented above about astronomers during the Copernican revolution exploiting the new system while denying or dismissing the principles upon which the new system is based would not be too at variance with Mao's assessment of the possible range of revolutionary activities. In my GSM I state: '... What about the distinction between (a) what a researcher actually does and (b) What he claims he is doing? This is a crucial question, for insofar as there is a distinction, we might suspect counterrevolutionary activity. Let us apply these notions to linguistics. If Chomsky 1957 caused a revolution in linguistics, was there a counter-revolution?...' (p. 277) Kuhn (see above quote) indicates there was a counter-revolution in astronomy. Poincaré suggests there was a discrepancy between what some physicists said and what they did after the relativity revolution in physics. I simply offer the observation that perhaps the same processes, stages, and activities which existed in the development of astronomy and physics also exist in the linguistics revolution.

The view of scientific revolution, I present conforms with the analyses of Kuhn, Koyré, Holton, Poincaré, Hall, Einstein, Northrop, Peirce, and others. McCawley's view of a scientific revolution as a technological revolution (or more exactly as a replacement of one product by another in the marketplace) conforms to none of the above analyses. As we shall see, however, McCawley's analysis of science agrees in large measure with that of Botha.

McCawley's concept of science differs in fundamental respects from the concept of science upon which *Syntactic Structures* and *Aspects* are based. In the *Aspects* framework, a scientist decides to replace one theory by another on the basis of a comparison of the explanatory power of the two theories. The concept of progress in science relates directly to the concept of explanatory power. McCawley's analysis of science and scientific revolutions overlooks the role of explanation. In fact, McCawley's analysis lets explanatory power play no role in deciding progress in science. The concept of progress in the marketing of writing instruments is not bound up with explanation. If McCawley does not base his research on explanation, then what forms the basis for advancing new theories in McCawley's generative semantics system? As he makes clear in his concluding paragraph: Progress in McCawley's 'science' hinges on the successful marketing of ideas.

In the *Aspects* view to displace one theory by another requires scholarship and an understanding of the logic of scientific research. In McCawley's view, to displace one theory by another requires salesmanship and a ready grasp of marketing strategies. How many researchers base their work on McCawley's ideas as opposed to the *Aspects* view? To what extent are current linguistic theories based on rhetorical justification as opposed to logical justification?

Botha, in *The justification of linguistic theories*, offers quite extensive evidence to show that many current linguistic proposals lack any logical motivation and are based solely on rhetorical devices. Botha's view of science parallels McCawley's and is opposed to the *Aspects* view. In *Aspects*, a practicing scientist or scholar is interested in objectively supported propositions for their own sake. Also, an argument can be valid and offer strong support for a position even if there are few persons capable of understanding it. Botha feels differently. The goal of a scientist is not simply to offer objective, factual motivation for proposals. Rather, the goal of a scientist is to persuade his colleagues. Developing ideas similar to McCawley's, Botha states:

In scientific discourse an argument taken as a whole is put forward by a scholar in order to attain a particular aim: persuasion. The arguing scholar hopes to persuade other scholars to adopt the position or point of view presented in the hypothesized proposition which constitutes the conclusion of the argument. To put it differently, a practising scientist or scholar is on the whole not interested in objectively supported propositions or in

acceptable hypotheses merely for their own sake. The practising scientist or scholar wishes, in addition, to *convince* [Botha's emphasis, RCD] his colleagues of the merit of these propositions and hypotheses. For the purpose of convincing his colleagues, the scientist or scholar uses arguments as vehicles of persuasion. (Botha : 38-9)

Botha develops this idea of persuasive power :

2.5.5. *The level of persuasive power.* In empirical science, arguments do not constitute frameworks merely for establishing supported propositions and objectively acceptable hypotheses. Scientists use arguments also for the purpose of 'converting' dissenting colleagues to the points of view expressed in these propositions and hypotheses. That is, in empirical science the arguments advanced in scholarly debates have the additional methodological function of being 'vehicles of persuasion'. The success which an argument achieves in persuading scientists or scholars to adopt the point of view presented in the conclusion of this argument should be judged at a separate level of merit : the *level of persuasive power*. (Botha : 51)

Botha discusses several ways one might increase the persuasive power of his arguments. He states :

.. generally speaking, arguments of well-known and respected scholars in a field will be more persuasive than the arguments of their less well-known colleagues. Consider a second psychological consideration bearing on the persuasive power of an argument. A scholar may increase the persuasive power of his arguments by suggesting (implicitly) that dissenters who refused to accept the conclusion would by such refusal show themselves to be irrational, or behind the times, or would upon such refusal find themselves to be the isolated adherents of a belief which none of their colleagues would seriously entertain...(Botha : 51)

...Various factors can be shown to contribute to the persuasive power of an argument, including rational ones such as the acceptability of the hypothesis which constitutes the conclusion of the argument and nonrational ones : factors which we will here label 'strategies of persuasion'. Merely for their exemplary value and without further discussion, we list below a number of the strategies of persuasion which seem to us to be operative in the intra-paradigmatic debates in transformational grammar : [There follows a list of eight non-rational strategies of persuasion.] There are numerous other considerations which may, when properly used, enhance the persuasive power of nondemonstrative arguments. The nature and properties of these

considerations, as they may be encountered in the field of transformational grammar, constitute, however, the subject for a full-fledged, separate study. (Botha : 332-3)

McCawley and Botha offer a view of science that diverges radically from that presented in *Syntactic Structures* and *Aspects* (the *SS-Aspects* view). I assume that McCawley is expounding the GS position. In this case, it might well be profitable to think that the major difference between the GS school and the *SS-Aspects* school is that these alternative schools are based on different conceptions of the goals of science, and more specifically, on different views of the goals of linguistic research. The goal of *SS Aspects* is to develop an explanatory theory of language. The goal of GS is to market new ideas with little, if any, concern for explanation. The *SS Aspects* school and the GS school, having different goals, have developed different methods of research and different types of argumentation. The *SS-Aspects* methods call for scholarship and inductive logic. The GS methods call for salesmanship and rhetoric. Botha points out that non-rational strategies of persuasion are widely used by linguists. To the extent Botha is correct, this indicates that the ideas, methods, and argumentation introduced and developed in *SS-Aspects* have not been accepted by professing transformational generative grammarians.

This analysis thus supports the thesis of GSM that the current dispute in linguistics between the *SS-Aspects* school and the generative semantics school, although often considered a theoretical dispute, is actually a dispute about the methodology and argumentation appropriate to linguistic research. This of course was the main point of GSM. There I claimed: 'My main goal is to put the GG-GS controversy into its proper perspective: GG and GS should be compared at the methodological level. The theoretical differences between GG and GS have little to do with the structure of language. They are largely attributable to different attitudes about the goals and methods of research.' (p. 256-7)

McCawley's article supports the argument in GSM and, in fact, offers an explanatory basis for the thesis in GSM. Since, as McCawley points out, GS is based on a different view of science than is the *SS-Aspects* view, GS and *SS-Aspects* have different goals. Consequently, they have developed quite different arguments and methods to attain their quite different goals.

(3) Crucial examples in choosing between theories. McCawley contends that GSM focuses on an irrelevant point:

... Fully one fourth of 'A Bloomfieldian Counterrevolution' is devoted to criticism of Postal 1966. Dougherty's fetishistic

attachment to that paper, which he also discusses at length in several other of his works, is incomprehensible to me. Postal 1966 is neither generative semantics nor an important way station on the road to generative semantics (in how many generative semantic papers has it even been cited as a reference?): it is simply a paper that a prominent generative semanticist wrote when he still subscribed to 'standard transformational grammar'. It is of as much relevance to a critique of generative semantics as Picasso's 'Blind Guitarist' is to a critique of cubism. Dougherty no doubt holds that the works he discusses illustrate evil ways of generative semanticists which persisted after they became generative semanticists. However, to establish that conclusion he would have to at least take the trouble to cite examples of generative semanticists sinning in the process of doing generative semantics. (p. xxxxx)

Why does Postal 1966, 'On So-Called Pronouns in English' (OSCP1E), play such a prominent role in GSM and in other articles? Is it, as McCawley claims, a 'fettish'? Consider these two views of the linguistic revolution:

- (1) Hypothesis I: Chomsky's revolution has only begun. Many professing generative grammarians, some considered to be leading exponents of generative views, (a) are incapable of distinguishing taxonomic methodology from generative methodology, (b) are not able to recognize incoherent, poorly argued work offered in the generative perspective, and (c) are denying the main points of generative grammar in their work.
- (2) Hypothesis II: Chomsky's revolution is essentially over. There are *no* leading exponents of Chomsky's views who are incapable of distinguishing taxonomic methodology from generative methodology, (b) are incapable of recognizing incoherent, poorly argued work offered in the generative perspective, and (c) are denying the main points of generative grammar in their work.

What type of evidence can one offer to choose between these two perspectives on the linguistics revolution? What is a crucial example in such studies? As is well known, in choosing between alternative grammars, sentences are crucial examples. In choosing between alternative revolutionary perspectives, crucial examples will be argument forms and methodological practices. More generally, crucial examples to choose between (1) and (2) will be articles, talks, etc. in which a linguist argues for or against a particular proposal. Let us examine this idea.

- (3) Crucial example: A crucial example in choosing between (1) and (2) would be an article which (a) at no point rose above the taxonomic methodology of slot-filler tests and diagnostic environments and (b) used incoherent arguments to justify the proposals offered, but which was highly regarded by professing generative grammarians in that it was (a) presented in anthologies for graduate students, (b) incorporated into introductory textbooks, (c) placed on selected abridged bibliographies by leading scholars, (d) spoken of highly, perhaps as a 'classic', by leading scholars, and (e) formed the basis of a movement of professing generative grammarians.

An article meeting condition (3) would be a crucial example in choosing between (1) and (2). According to (1), no such articles should exist because all of the leading exponents of Chomsky's views are capable of distinguishing coherent arguments from incoherent arguments. These scholars would insure that an incoherent article could not get very far without being exposed. On the other hand, according to (2), articles like (3) should exist because there are leading exponents of Chomsky's system who are incapable of understanding the material which forms the basis for Chomsky's proposals. If (2) is true, articles like (3) should exist in abundance.

If an article like (3) exists, then (2) is correct and (1) is incorrect.

Postal 1966, OSCPIE, is an article meeting the conditions (3). Delorme and Dougherty 1972, and Dougherty (1973, 74) show that Postal 1966 never gets beyond the level of slot filler tests either in the statement or in the solution of the problems he poses. Postal's form of argument has been discussed at length in the above references. At best, Postal 1966, considered from the viewpoint of generative grammar is poorly argued.⁴

First presented at the Georgetown Linguistics Conference, Postal 1966 has been highly regarded by professing generative grammarians in that (a) It is frequently cited in the literature and appears on selected abridged bibliographies, e.g. it is one of only five English articles listed in the German translation of *Aspects* as indicating the directions of future research (see Lang). (b) It has been incorporated into introductory textbooks (Jacobs and Rosenbaum 1968). (c) It is presented in two anthologies directed at students (Jacobs and Rosenbaum 1970, and Reibel and Schane). (d) It is highly regarded by generative linguists. Reibel and Schane state: 'In "On So-Called 'Pronouns' in English", Paul M. Postal adduces

syntactic evidence for considering pronouns as a variety of definite article. His treatment exemplifies 'the striking kinds of differences that can be found between the underlying and surface forms of sentences.' (p. 143) Jacobs and Rosenbaum state: 'Postal [1966] presents an unorthodox but very persuasive analysis of the deep structure of personal pronouns and of their transformational derivation.

(1970: vii) (e) It is referred to as a 'classic' in several dissertations on pronouns and in scholarly discussions. Zwicky 1974 claims that Postal 1966 is a paper 'that almost any syntactician would recognize as classic...' (1974: 369) (f) It is a progenitor of other articles of the same type (see Delorme and Dougherty: 3, fn. 1, for references). And (g), Postal 1966 might, for several reasons, be considered as laying the intellectual foundations of generative semantic methodology and argumentation.

McCawley's failure to comprehend the significance of OSCPIE reflects his failure to recognize that the real issues separating GS from *SS Aspects* are methodological and not theoretical. He states: '[OSCPIE] is simply a paper that a prominent generative semanticist wrote when he still subscribed to "standard transformational grammar".' But, however much OSCPIE incorporates theoretical terminology drawn from *SS-Aspects*, the article does not employ the argumentation and methodology introduced and developed in *SS-Aspects*. In fact, the argumentation of OSCPIE seems to be based on a concept of science similar to McCawley's. Using McCawley's analogy, the style of argumentation in OSCPIE calls to mind a merchandiser advertising ball point pens over fountain pens. The crucial idea in OSCPIE seems to be the marketing of ideas and not the justification of an explanatory theory of language.

OSCPIE constitutes a crucial example in choosing between two alternative theories of the linguistic revolution. Beyond this concern, however, lies another, far more important consideration. What is the future of linguistics as a science? What is the future of linguistic methodology? What will be the future of linguistic research? My guess is that these questions can only be answered by examining the capacities and attitudes of the students inducted into the field of linguistics. The potential of linguistics to attract potential students depends in large measure on what material is held up to graduate students to serve as models of successful research and to define linguistics as a science. If the material held up is incoherent, then clear witted students may be repelled from linguistics considering it to be a sham science, and, even if they are inducted into linguistics, one can only wonder what will be the effect of a

steady diet of incoherent articles. The real need is to expose students early to coherent research in the transformational generative framework, and to provide them with an understanding of the nature of explanations which can be sought in linguistics.

Each person has a vote in deciding the future of linguistics. A vote is cast each time a teacher presents material to students. Should we teach students that motivating scientific theories is like marketing ball point pens, as McCawley would have it? Should we inculcate students with means to persuade colleagues, as Botha tells us? Or should we teach students to objectively justify explanatory hypotheses along the lines discussed in *SS-Aspects*? Each person must be his own judge.

If we wish to orient students towards the generative methodology as presented in the *SS-Aspects* theory, then we must encourage a student to become a critic of arguments. A student must be able to distinguish rhetorical argumentation intended to persuade colleagues from logical argumentation intended to justify an explanatory theory of language. A student must develop confidence sufficient to challenge incoherent arguments and rhetoric when encountered. An 'Emperor's new clothes' phenomena pervades today's linguistics with the result that texts, anthologies, etc. contain some articles which are morbidly illogical. A student must realize that some articles contain not a problem but a riddle, and the answer to the riddle is: 'There is no problem'.

As a contribution to an understanding of the basic processes and mechanisms of sentence construction, Postal 1966 is useless. It is, however, an extremely important article in deciding between alternative views of the linguistic revolution since it meets condition (3).

(4) What is generative taxonomy? Interesting questions about the structure of language can only be raised internal to a well-defined framework of assumptions. GSM defines the generative (GEN) view and the taxonomic (TAX) view of language research and asks the question: Is GS internal to the methodological perspective of GEN or TAX? The terms 'generative grammar' and 'taxonomic grammar' are defined in GSM and in many writings of Chomsky, including *Syntactic Structures*. I believe that TAX and GEN are sufficiently well-defined that the questions raised in GSM are meaningful.

Now consider McCawley's statement:

...Regarding Dougherty's second charge, it is not clear why he takes failure to 'present rules to generate sentences' to be characteristic of 'pregenerative (taxonomic) methodology': Bloch

1946 and Harris 1946 contain taxonomic grammars that specify which strings of morphemes conform to the grammar and which do not just as precisely as does any transformational grammar. I assume, incidentally, that Dougherty uses the word 'generate' in the same sense as Chomsky does: 'specify what belongs and what does not belong to the set in question.' (p. XXX)

According to McCawley, Bloch and Harris have taxonomic grammars that specify members of some set, i. e. which strings of morphemes conform to the grammar and which do not. Since McCawley applies the word *generate* to anything which 'specifies what belongs and what does not belong to the set in question'. then, given that Bloch and Harris have grammars that specify members of some set, McCawley has proved that Bloch and Harris have generative grammars.⁵

There are fundamental differences between taxonomic grammars and generative grammars, and between taxonomic methodology and generative methodology which cannot be erased by word-play. These differences are made clear in GSM. As I pointed out in GSM, certain GS formulations are based on a misunderstanding of the differences between generative and taxonomic methods. If McCawley feels that Bloch and Harris offered systems which are 'generative grammars' as this term is defined in *Syntactic Structures*, then he is simply unaware of what the term *generative grammar* means. (See GSM, pp. 265-7).

The differences between TAX and GEN are made clear in GSM. Rather than restate them as they are presented there, I reformulate the issues another way here:

Both Harris (TAX) and Chomsky (GEN) formulate questions about language structure in terms of algebraically formalizable tools of description, e. g. transformations. But Harris and Chomsky differ in defining the goals and methodology of linguistic research.

In the transformational taxonomic system of Harris, the goal of linguistics is to express, by formalized rules to grammar (transformations, etc.), regularities and generalizations which obtain between observable phenomena (surface structure strings).

In the *Syntactic Structures-Aspects* view of linguistic research, explanation goes beyond the classification of data using algebraic tools like transformational rules. In a transformational generative grammar, algebraic tools are used to formalize the mechanical principles of sentence construction into a theory (a grammar) from which one can deduce consequences (the structural descriptions underlying the sentences of the language) which can be verified or

refuted in comparison with the observable data (the primary data of the language studied). Our goal is to develop a grammatical model which will generate all and only the grammatical sentences of English by appealing to strong assumptions which narrowly constrain the notions *language* in general and *English* in particular. (See Dougherty 1973) Explanation correlates with the narrowness with which our assumptions constrain the notions *English* and *language*, i. e. with the tightness of fit between the theory and the data. An explanatory theory derives its explanatory power from the fact it not only indicates why the data take the form they do, but further, why the data take that form and not some other, a priori equally plausible form. A grammar that is not only compatible with the actually occurring data, but that is also incompatible with the hypothetical non-occurring data, provides principled reasons for why the data take a certain form. Such a grammar goes beyond the question 'What is the form of the data?' and asks: 'Why do the data take this one particular form and not another a priori equally plausible form?'. This is, in large measure, the essence of explanation in linguistics as linguistics is defined in the *ST-Aspects* framework. Questions of explanation arise when we speculate about the process by which a generative grammar, which makes claims about an infinite number of sentences, is selected on the basis of a finite amount of data.⁶

The rules presented by Harris are presented within the taxonomic framework and are motivated by taxonomic methodology. The rules presented by Chomsky are within the generative framework and are motivated by generative semantics? Is generative semantics a Harris-type or a Chomsky-type system? It seems that, according to McCawley, both Harris and Chomsky offer generative systems. Perhaps McCawley feels that generative semantics is generative in the same sense that Harris' proposals are generative. I would agree with that.

McCawley's analysis agrees with that of Fillmore, has developed the idea of 'generative taxonomy' as an elaboration of the goals of generative semantics research. Fillmore states:

For some time I have been striving to understand just exactly what it takes for something to be a generative grammar. The nature of my concern with this question is not that of a metatheoretician within the discipline, nor that of a philosopher of science looking at our field from the outside; it is rather that of an easily confused 'ordinary working grammarian' who is trying to be minimally clear about what it is that he is doing. (p. 1)

.. I must explain also, before I go on, that the ordinary working grammarian I have in mind finds himself fairly solidly with the

generativist camp. His doubts about generative grammar do not arise from any assumptions about the superiority of the research goals of the taxonomists or distributionists of a decade or two ago. To him, the data do not determine the conceptual base of the theory; they constitute, rather, the phenomena which the theory has to explain. And this was something he learned from the generativists. (p. 3)

...He [the ordinary working grammarian. RCD] feels, in fact, that he finds himself in the age of what we might call the New Taxonomy, an era of a new and exuberant cataloguing of the enormous range of facts that linguists need eventually to find theories to deal with. (p. 16)

...[As for the ordinary working grammarian] knowing what he does not have to do will not give him reliable insights into what he does have to do, unfortunately, but that is because the ordinary working grammarian I have in mind is exactly as confused as I am about that. If he is a practitioner of the New Taxonomy, he is having a good time. It is possible to remain happy for a while, without well-defined goals. (p. 18)

According to Fillmore, the ordinary working grammarian 'finds himself solidly within the generativist camp' and is having a good time practicing the 'New Taxonomy'. Fillmore seems to feel that generative research consists of taxonomic research. The confusion Fillmore refers to in the last paragraph quoted above does not stem from not having well-defined goals. It stems from Fillmore's not knowing what his goals are. As is pointed out in GSM, Fillmore's goal is to construct a generative catalog.

In GSM I stated: 'Evidence strongly suggests that certain GS workers, Postal and Fillmore in particular, are attempting to lead a counterrevolution against the *Syntactic Structures* notion of generative grammar and reinstate Bloomfieldian taxonomic methods. (p. 255) This appears to be confirmed by Fillmore 1972, quoted above, asserting that generative semantics is the 'New Taxonomy'. McCawley claims: '...I should remark that Dougherty can hardly be expected to have shown anything about generative semantics, since, except for some works that he cites only in passing ..., the works by generative semanticists that he discusses were written before the respective authors adopted positions that could reasonably be identified as generative semantics ...' (p. XXX). Fillmore 1972 was written after Fillmore had made his generative semantics position clear.

The positions taken by Fillmore and by McCawley indicate basic confusion about the meaning of the terms 'taxonomic grammar', 'generative grammar', 'taxonomic methods', and 'generative methods'.

This, of course, supports the position in GSM. There it was pointed out that much confusion existed about the meaning of 'taxonomy' and 'generative grammar'. See pp. 265-7, and passages such as: 'If a structural linguist using taxonomic methods gets a 'taxonomic catalog', would a generative linguist using taxonomic methods get a 'generative catalog'? The term 'generative catalog' is inherently contradictory, a juxtaposition of opposites. The term 'generative catalog' describes something that is neither fish nor fowl, in short, it is exactly the term needed to describe certain recent contributions to linguistic research'. (p. 266) It seems clear that McCawley and Fillmore are engaged in constructing 'generative catalogs'.

(5) Heuristic Discussion versus Justificatory Arguments. In GSM, I assert that generative semantics is 'the results obtained by applying the methods of pregenerative (taxonomic) linguistics to justify taxonomic grammars which have a generative flavor.' (p. 255) McCawley refers to this as 'Dougherty's first charge' in this passage:

The specific objections that Dougherty raises under his first charge seem ludicrous in light of the fact that the same symptoms of 'taxonomic methods' that Dougherty finds in Postal 1966 can be found in Dougherty's own work. Dougherty defines features that figure in his analysis in terms of distributions: '[+individual] The adverbs *alone*, *singly*, *individually*, and *independently* can occur with a quantifier having this feature' (Dougherty 1970:868); and the analysis of *we linguists* given in Delorme and Dougherty 1972 is at least as 'taxonomic' as that of Postal 1966: Delorme and Dougherty treat *we linguists* as an appositive construction (relying, among other things, on the fact that *linguists* occurs there in the diagnostic environment for 'appositive'), but reject the popular analysis (accepted by Postal) of appositives as reduced non-restrictive clauses and incorporate them into their analysis by assigning them a deep structure that coincides with their surface structure. Of course Dougherty does more than just this taxonomy: he offers various arguments that purport to show the superiority of his analysis over various alternatives: but so does Postal. (p. xxxxx)

McCawley fails to point out that he is quoting from Dougherty 1970 completely out of context. After I define the feature [+individual] in terms of cooccurrence, exactly as McCawley has quoted, I then state: 'These definitions are merely suggestive, since the real content of the features comes from the role they play in the grammar.' (ibid: 868) McCawley fails to point out the different use made of taxonomic tests by Dougherty 1970 and by Postal 1966. I use such

tests merely as a heuristic to clarify issues, not to justify hypotheses. Postal uses taxonomic tests not simply as heuristic devices to clarify his proposals, rather, they are used to provide 'strong justification' for his analysis. Postal states :

[In sequences like *we men*, *we policemen*, etc.] we actually find the so-called pronouns *we/us* and *you* as *articles* in the *surface structures*. [Postal's emphasis, RCD] And this is among the strongest evidence for our overall claim that the so-called pronouns have essentially the same type of derivation and status as traditionally recognized definite articles. (Postal 1966 : 219)

Postal 1966 uses heuristic (taxonomic) devices to provide the 'strongest evidence for his claim'. Dougherty 1970 uses heuristic devices for what they are: tools to clarify points or to direct thinking, but which provide no justification for a generative theory. One must never attribute to an argument form a strength which it does not possess.

McCawley's claim that 'the analysis of *we linguists* in Delorme and Dougherty is at least as taxonomic as that of Postal 1966' is completely unfounded. His assertion that the analysis of Delorme and Dougherty relies 'among other things on the fact that *linguists* occurs there in the diagnostic environment for "appositive"' is false. Presumably this is why McCawley offers no evidence to support his insinuation not even a quote out of context. McCawley says 'there in the diagnostic environment...', I ask: Where in the diagnostic environment? Some reference to the article in question would seem apropos. I presume that McCawley's claim is based on his misunderstanding of the terms taxonomic and generative. Recall that in McCawley's terminology, Harris and Bloch offered 'generative' systems since they offered grammars to specify members of sets. Perhaps McCawley has some equally curious analysis of the word 'taxonomic grammar'.

At various points McCawley indicates that the analysis in OSCPIE can explain data. Delorme and Dougherty and Dougherty 1973 show that this is not true. Postal's system does not explain, or in fact even describe, most of the distributions of data he cites as 'crucial justification' for his position. The OSCPIE analysis contains inherent contradictions and makes heavy use of ad hoc devices.

McCawley claims: 'Of course Dougherty does more than just this taxonomy: he offers various arguments that purport to show the superiority of his analysis over various alternatives; but so does Postal. (p. XXX) In GSM I stated: '...A further complication is

that Postal 1966 fails to consider reasonable alternatives and compares his unformulated rule-free analysis with a caricature of Jespersen's proposals about constructions like *we men*, *we Yorkshiremen*, etc. Postal feels that Jespersen, perhaps inspired by a premonition of Chomsky 1957, would transformationally derive these constructions from underlying appositive relative clause constructions like *we, who are men*; *we, who are Yorkshiremen*; etc. This is the analysis which Postal shows to be incorrect. I would imagine, however, that Jespersen would have realized that a simple PS grammar would account for a wide range of constructions including the restricted range of data discussed by Postal. See Dougherty 1973.' (GSM : p. 281, fn. 6)

Contrary to McCawley's assertions, Postal 1966 does not show the superiority of his proposals over reasonable alternatives. Postal sets up straw-or imaginary-men. Consider Postal's formulation of Jespersen's position for describing *we men*, *us workers*, etc.

Postal (1966 : p. 217) states : 'Jespersen, who of course noticed such forms (Jespersen, 1956, Vol. II, p. 85), implied in effect that they were derivatives from appositive relative clauses. In transformational terms this would naturally suggest derivations like, schematically, *we, who are men* → *we men*; *you, who are children* → *you children*. If this solution could be maintained, it would obviate taking *we* and *you* to be articles in such phrases as is insisted here.'

Jespersen (ibid) says : 'The plural *we* is essentially vague and in no wise indicates whom the speaker wants to include besides himself. Not even the distinction made in a great many African and other languages between one *we* meaning 'I and my own people, but not you', and another *we* meaning 'I + you (sg or pl)' is made in our class of languages. But very often the resulting ambiguity is remedied by an appositive addition; the same speaker may according to circumstances say *we brothers*, *we doctors*, *we Yorkshiremen*, *we Europeans*, *we gentlemen*, etc. Cf. also GEM 2.201 *we people who have not been galloping...*'

I can, contrary to Postal's assertions, see nothing in Jespersen's discussion which implies *we Yorkshiremen*, etc. are derivatives from appositive relative clauses. In fact, I suspect Jespersen might have noticed that the cases he treated as 'appositive additions' could be described by a phrase structure grammar. It is interesting to see what Jespersen means by 'appositive', i.e. with what other constructions does Jespersen group *we Yorkshirmen*?

Under the heading 'Apposition, Extraposition', Jespersen (1964: 93) says: 'In such composite denominations as *John Smith*, *Dr. Smith*, *Mr. Smith*, *Miss Smith*, *Miss Lydia Smith*, etc., the words preceding the family name are to some extent similar, though perhaps not exactly parallel, to the adjuncts dealt with in the beginning of this chapter. The elements are joined together in a somewhat looser way in *my brother Charles*; *the Bronte sisters*; *the celebrated explorer, Sven Hedin*; *the river Thames*, *London town*, etc. . . It is difficult to distinguish such combinations from others, for which we have the grammatical term 'apposition': In *St John the Baptist* we say that *the Baptist* is in apposition to *St John*. Similarly in *his father, the renowned physician*; *Bradley the lexicographer, not the philosopher*, etc.'

Looking at the areas where Jespersen discusses 'apposition', I can find no place where his analysis implies that *we Yorkshiremen*, etc. or *his father, the renowned physician*, etc. could, much less should, be derived from appositive relative clauses. I notice two things: (a) Jespersen groups constructions like *we men*; *we, the men*; *I, a man*; *Bradley, the lexicographer*, etc. under the same title (apposition); and (b) these appositive constructions can be described by a PS grammar.

As is made clear in Dougherty 1973 (especially pp. 452-8), one of the basic problems with generative semantics is the failure of GS methodology to require the contrast of substantive alternatives.

(6) Empirical versus explanatory. I agree in principle with Kuiper's comments. Kuiper perceives exactly the focal point of the dispute between GS and the *SS-Aspects* view. Recall that Fillmore says: '[The ordinary working grammarian, solidly with the generativist camp,] feels, in fact, that he finds himself in the age of what we might call the New Taxonomy, an era of a new and exuberant cataloguing of the enormous range of facts that linguists need eventually to find theories to deal with. (Fillmore: p. 16) Fillmore's statement of generative semantic goals correlates exactly with the evaluation of Kuiper: 'Generative Semantics must therefore be seen as operating at a pre-scientific level of open speculation. Such a level is not without its uses since it can throw up ideas which may later be incorporated into a scientific theory. But it must be noted that such ideas have no scientific status until they *are* incorporated into such a theory.' (Kuiper: XXX) Generative semanticists do not distinguish between an idea and a theory. An idea can be relevant or irrelevant, useful or not useful, non-trivial or trivial, etc. insofar as it does or does not play a role in describing data. A theory is a combination of descriptive devices which attempts to provide a principled description of the patterns of grammatical and ungrammatical

sentences in a language. A generative semantics proposal consists usually of a collection of ideas, and not especially useful ideas. They do not add up to provide a theory.

As is discussed in Dougherty 1973, GS proposals may be empirical in that they can be judged to be compatible or incompatible with the data, but they are not explanatory because they indicate only that data *could* be described a certain way, not that the data *should* be described a certain way. GS proposals are empirical in the sense that taxonomic analyses are empirical, but they are not based on the *SS-Aspects* concept of explanation. (See Dougherty 1974.) As Kuiper correctly points out, the concept of explanation in the *SS-Aspects* view relates directly to the concept of *falsifiability* developed by Popper.

(7) Conclusion. It seems to me that the main conclusions of GSM are supported by the observations of McCawley, Fillmore, and Botha. Kuiper goes beyond the simple analysis of GSM and shows the relation of the *SS-Aspects* view to ongoing trends in the philosophy of science. Fillmore's idea that generative semantic research is the 'New Taxonomy', and McCawley's idea that a scientific revolution is like a technological change in which ball point pens replace fountain pens indicate that generative semantics is based on a view of science very different than that presented in *SS-Aspects*. This supports the main point of GSM: 'GG and GS should be compared at the methodological level. The theoretical differences between GG and GS have little to do with the structure of language. They are largely attributable to different attitudes about the goals and methods of research.'

FOOTNOTES

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2. In a time of revolution-scientific or otherwise-one must pay close attention to what the revolutionaries do and not simply

concentrate on their policy statements. In the linguistics revolution, some of those who are the loudest, most outspoken adherents of generative grammar are those who deny the main tenets of generative grammar in their offerings. My analysis pays little attention to rhetorical protestations of faith and focuses on the substantive proposals offered by linguists. One conclusion stemming from my observations is that there frequently exists a difference between what a linguist says he is doing and what he does, between his words and his deeds.

3. See Dougherty 1974 for an analysis alternative to McCawley's.
4. For example, Postal sets up straw men, cites counter examples to his theory as providing 'crucial justification' for it, uses ad hoc 'highly restricted and low level rules' to make his formulation fit the facts, etc. These points are discussed at length in Delorme and Dougherty, and in Dougherty (1973, 74).

Since McCawley addresses himself to none of the substantive issues raised in the above articles, I assume he agrees that Postal 1966 is poorly argued when viewed from the perspective of *SS-Aspects*.

McCawley states that in GSM I 'can hardly be expected to have shown anything about generative semantics, since, except for some works that [I] cite only in passing (...McCawley 1968...) the works cited were written before the respective authors adopted positions that could reasonably be identified as generative semantics...' (McCawley: p. XXX) McCawley fails to point out that the works cited in passing in GSM have been treated at length elsewhere: Dougherty 1970, for example, discusses McCawley 1968 at length. Also Chomsky has shown rather persuasively that McCawley 1968 is based on an equivocation, a point with which Lakoff agrees. See Chomsky 1972 for references and discussion.

My position in GSM is a distillation of my studies of generative semantics. Although the theoretical positions offered by generative semanticists have changed, the quality of argument offered to back the theories championed remains unchanged.

5. Perhaps 'proved' is the wrong word, McCawley may only be insinuating that Bloch and Harris have generative grammars. It is not clear to me if McCawley wants to draw any conclusion from his rather loose discussion of the word *generate* and his

mention of Bloch and Harris. The point of McCawley's discussion escapes me because the article Harris 1946, 'From Morpheme to Utterance', is considered by many to be a paradigm example of a taxonomic discovery procedure and to be completely at odds with the procedure to evaluate freely invented grammars developed in the *SS-Aspects* framework. See Lees' review of *Syntactic Structures*.

6. Kuiper's comments contain an excellent discussion relating the concept of explanation in linguistics to the more general idea of *falsifiability* as advocated by Popper.

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THE TERMS ELUTTU, PULLI AND MEY IN TAMIL GRAMMAR

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A great deal of confusion has been introduced into the discussion of Old Tamil Phonology (cf. Chidambaram Pillai 1928, Subrahmanya Sastri 1930, Sankaran 1951, Kuiper 1958 and 1973, Meenakshisundaram 1965, Shanmugam 1967) by giving what appears to be wrong interpretations to some *sūtras* of *Tolkāppiyam Eḷuttatikāram* (TE), which are the direct outcome of the wrong meanings given to the technical terms *eḷuttu*, *puḷḷi* and *mey* and misinterpreting the concept of *cārpeluttu*. The purpose of this paper is to offer fresh interpretations of the relevant *sūtras* in the light of the meanings suggested for the terms involved in them.

The term *eḷuttu* is used in TE only in the sense of 'speech-sound' and not in its (later) sense 'a written symbol'. While the first two *sūtras*,

1. *eḷuttenappaṭupa*
akaramutal
ṇakara-v-iṇuvāy muppa. ∴ tenpa;
cārntutuvaram marapiṇ mūṇralaṅkaṭaiyē.
2. *avaitām*
kurriyal-ikaram kurriyal-ukaram
āytam enra
muppārpuḷḷiyum-eḷuttōr-anna.

make this absolutely clear, a careful reading of the other *sūtras* wherein the term occurs will show that the author of the grammar has never confused between the spoken sound and the written symbol. P. S. Subramanya Sastri's translation of *sūtra* 41, for example,

kunricai molivayi ninricai niraikku
netṭelutt-impar-ottakurrelutte

as “Whenever a vowel is so lengthened as to have three mātrās, they are respectively represented in script by the symbol for the long vowel followed by one or more symbols for the short vowel of the same class” is unacceptable. Having set up short and long vowels as distinct phonemes by recognizing a phoneme of length which has two mātrās, the author is here trying to account for the phonetic characteristic of certain usages where one may have to speak of more than two mātrās of length. In such a situation, it *appears (impar)* as if a short vowel has been added to the long one. The appropriateness of this interpretation will be seen from the next sūtra:

ai au vennum-āvīr-eluttiⁿ
kikara-v-ukaram-icainiraiv-ākum

which means that when *ai* and *au* are lengthened, *i* and *u*, respectively, are added to them.

If we accept the position that the author of Tolkāppiyam, like any good grammarian, did not mix up speech and writing in his analysis of the Tamil language,¹ it will at once be clear that the term muppārpuḷi in sūtra 2 cannot have meant ‘three dots’ as is usually assumed (cf. Sastri’s translation of the sūtra as “They (secondary sounds) are *ī*, *ū* and *∴* which are represented by dots (in script).”

Tolkāppiyam uses two terms to refer to consonants, viz., *puḷi* and *mey*, and commentators and translators have all along seem to have taken them to be synonyms. But an examination of the implications of the relevant sūtras makes it amply clear that the two terms are distinct in meaning, and fill different roles in the description of Tamil phonology. *puḷi* is used in Tolkāppiyam when the author wants to refer to a ‘pure’ consonant i. e. a consonant without incorporating an enunciative; e. g. *k*, *t*, *p*, etc. *may* on the other hand, is a consonant which incorporates an enunciative. This distinction is consistently made. For example, while listing the consonants which can end a word, the term *puḷi* alone is used :

ñāṇanama nayarala vaḷaḷa vennum-
appatinonrē puḷi-y-iruti.

‘Only the eleven consonants ñ, ṇ, n, m, n, y, r, l, v, l, and l can stand finally’ (TE 78: P. S. S. Sastri’s translation).

1. It is a moot question whether writing resembling symbols of the modern orthography existed at the time of Tolkāppiyam. Surely, if the grammar is to be ascribed to the 2nd century A. D. or an earlier date, we have no basis for the assumption, since the earliest specimen of writing in the Tamil language so far known are in the Brahmi script and it has been conclusively proved that the Tamil script evolved from the Asokan variety of this script.

However, the term *mey* is the general term for consonants. Interpreted in this manner, sūtra 15 :

meyyin-iyarkai pulḷiyoṭu nilaiyal would mean : 'the original or natural form of a consonant is to be a *pulḷi*, i. e. to be without an enunciative incorporated in it while pronouncing it.'

Again, sūtra 17 :

pulḷi-y-illā-v-ellā meyyum
uruvuru-v-āki-y-akaramōṭ-uyirttalum-
ēnai-y-uyirōṭ-uruvutirintuyirttalum-
āyī-r-iyala-v-uyirttal-ārē

then would mean that when consonants are not articulated as *pulḷi*, *a* is automatically incorporated in them, etc. It is significant that sūtra 18 :

meyyin valiyat-uyirtōṇru nilaiyē

uses the term *mey* to speak about the consonant which is followed by a vowel. Also, it may be noted that when stating what consonant or consonants can follow a particular consonant, the term *pulḷi* alone is used, as in sūtra 28 :

ma. : kāṇ pulḷimūṇ vavvum tōṇrum

'*m* can also be followed by *v*'

Note, again, that the section on sandhi which deals with forms wherein the first word ends in a consonant is called *pulḷimayaṅkiyal*

If, thus, *pulḷi* means a 'pure consonant' what does *muppārpuḷḷi* in sūtra 2 mean ? The sūtra reads :

avaitām
kurriyal-ikaram kurriyal-ukaram
āytam-eṇra
muppār-pulḷiyum eluttōr-anna

P. S. Subrahmanya Sastri translates it as follows :

'They (secondary sounds) are *ī*, *ū* and *∴* which are represented by dots (in script)'. Sastri, like other translators and commentators on Tolkāppiyam, takes *pulḷi* to mean a 'dot' in this sūtra and some others. We have taken the justifiable position that Tolkāppiyam *Eluttatikāram* does not refer to written symbols at all. This leads us to a new interpretation of *muppārpuḷḷi* which incidentally, throws considerable light on the concept of *āytam* in Old Tamil phonology.

As stated above, the term *muppārpuḷḷi* is usually taken to mean 'three dots'. Some, like Sastri, take it to mean that all the three sounds mentioned in the sūtra, viz., *kurriyal-ikaram*, *kurriyal-ukaram*

and *āytam* are represented by dots in writing while others take it to mean that *āytam* alone is referred to, since the conventional symbol for *āytam* is the three dots ∴. But it is clear that the author of *Tolkāppiyam* does not use the term *puḷḷi* indiscriminately to mean both 'dot' and 'pure consonant'. In fact, since it can be definitely proved that there is no reference to any writing system in *Tolkāppiyam* *Eluttatikāram*, the only meaning we have to ascribe to *puḷḷi* is 'pure consonant', wherever it occurs. We have then to break up *muppārpūḷḷi* into *mu* and *pārpūḷḷi*. *mu*, no doubt, means three, and it is three elements that the *sūtra* is talking about. Now, *pārpūḷḷi* (*pāl*+*puḷḷi*) can be taken to mean 'part of *pulli*' (cf. *pālvarai* in *sūtra* 166). *pāl* has, both according to *Tamil Lexicon* and *DED*, the meaning of 'part' or 'portion'. The term *pārpūḷḷi* in *sūtra* 2, in fact, only clarifies the term *cārantuvaran* 'dependent' of *sūtra* 1. In this connection the term *appal* in *sūtras* 3 and 4 is also noteworthy. In the context in which it occurs, viz.

3. avarruḷ
a i u
e o ennum-appāl-aintum
ōraḷapicaikkuṅ-kurreluttennpa (TE, 3)
ā i ū
ē ai
ō au ennum-appāl-ēlum
īraḷap-icaikku-neṭṭeluttennpa (TE, 4)

it clearly means 'that part or portion' (of the vowels listed).

ōraḷap-icaikkuṅ-kurreluttennpa (TE, 3) *pāl-puḷḷi* or *pārpūḷḷi* thus means 'a part of *puḷḷi* or 'pure-consonant', that is, 'occurring with a pure consonant'. *kurriyal-ikaram*, *kurriyal-ukaram* and *āytam*, in other words, were considered as being a part of a pure consonant in the sense that they always occurred with one such and not independently, and hence the term *cārpeluttu* or 'dependent sounds' for them.

The term *āyappuḷḷi* occurring in *sūtra* 38 :

kuriyatann munnar-āyappuḷḷi
uyiroṭu puṇarntaval-l-āran micaittē

lends support to this view. The translation given by P. S. Subrahmanya Sastri for this *sūtra* is - ∴ is always preceded by a short vowel and followed by a hard consonant. The translation obviously assumes that *āytam* is separate speech-sound (whatever may be its nature) and that it is always followed by a hard consonant. A careful translation of the *sūtra* should, however, read 'In front of a short (vowel) sound the *āyappuḷḷi* or *āytam*-bearing pure consonant appears

as anyone of the six hard consonants which are combined with vowel'. Viewed in this light, then, *āy_{ta}m*, like *i* and *ū*, is taken to be a sound feature that is dependent on a pure consonant *puḷḷi*.

Now consider the following sūtras :

meyyin-aḷavē-y-arai-y-eṇa molipa (TE, 4)

avvianilaiyum ēṇai mūṇrē (TE, 12)

We may interpret them as follows :

(‘pure consonant’ has no mātra), *me_y* has half a mātra as it carries an enunciative and *carpeḷuttukkaḷ* (which are like enunciatives) also are said to have half a mātra.

While the two *cārpeluttukkaḷ* (dependent sounds) *kuṛṛiyalikaram* and *kuṛṛiyalukaram* are, from their very names, clearly defined, there is no such clarification regarding the third *cārpeluttu*, namely *āy_{ta}m*. We have to try to determine its nature from the various indirect hints we get about its nature as well as from its distribution. The term *āy_{ta}ppuḷḷi*, as we saw above, is one such indication. Sūtra 201

yāten iṛutiyum cuṭṭumutal-ākiya-v-

āy_{ta} iṛutiyum-anṇoṭu civaṇum

āy_{ta}m keṭutal-āvayin-āṇa

says that at the end of *yā_t* (u) and at the end of *āy_{ta}m* (bearing consonant?) in words which begin with a demonstrative (the flexional increment) *an* appears and *āy_{ta}m* in such instances is dropped.

Sastri’s translation is

The word *yātu* and the word *a* ∴ *tū*, *i* ∴ *tū* (and *ū* ∴ *tū*) which commence with a demonstrative letter and have *āy_{ta}m* in the middle take the increment *an*: and the *āy_{ta}m* in the latter case is then dropped. Ex. *yā_{ta}ṇai*, *a_{ta}ṇai*, *i_{ta}ṇai* etc. The translation is obviously faulty, since *āy_{ta}-v-iṛuti* has been translated as “*āy_{ta}m* in the middle,” whereas *yā_{te}n-iṛutiyum* is translated as at the end of *yātu*. *āy_{ta}-v-iṛuti* here has to be understood as ‘after the *āy_{ta}m* bearing consonant’, for *an* is added after *t* in *a_{ta}ṇai*. Hence, what is involved here is the same as *āy_{ta}ppuḷḷi* of sūtra 38, etc. So also is the case in the situation described as *āy_{ta}ttoṭar* in sūtra 414 and elsewhere:

The conclusion that emerges regarding the nature of *āy_{ta}m*, therefore, is that it was a kind of stress conceived to be associated with a voiceless stop and that it very often served the purpose of a boundary marker.

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MORPHOPHONEMIC ALTERNATIONS

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One would think that the topic under consideration is so much worked on that there can be hardly anything new to talk about. One might even think that it is so well understood that it has place only in the elementary books of our discipline. For these assumptions to be shaken it will require, no doubt, a little careful look at the treatment of this topic in these elementary books. Two things will be noticed: some amount of vagueness about the actual number of types of alternations and their interrelations. Second, some of the same titles of the types actually refer to different types of alternations.

Before we tackle these two problems let us refer to what we consider two basic concepts of morphophonemic alternations. The concepts are that of ARCHIPHONEME and that of MORPHOPHONEME. When two phonetically similar phonemes are in complimentary distribution we set up an archiphoneme¹. When this complimentation is relative to different shapes (allomorphs) of a single morpheme we set up a morphoneme. With both concepts the conditioning environments for complimentation, except for one type of morphophoneme, are phonological. The difference lies in the affiliation of the conditioned variants themselves. The conditioned variants in the case of archiphoneme are not necessarily associated with any morpheme or class of morphemes. While, in the case of morphophoneme they are so associated, necessarily.

The second problem above has arisen due to the priority given to either of the two above concepts. One type of alternations are called automatic if the priority is given to morphophonemic. While if the priority is given to archiphoneme it is another type of alternations that are referred to by the term.

1. A zero may be taken as one of the two phonemes for every phoneme.

Let us first consider the scheme of alternations which is due to the priority given to the concept of archiphoneme. For the present we will exclude the alternations which are morphologically conditioned. Although not explicitly stated, the system of alternations given by Hockett (1958 : § 33) and Hoenigswald (1966; 1950 : § 10) is based on the presence or absence of archiphoneme. An alternation is automatic if an archiphoneme is involved. It is non-automatic if no archiphoneme is involved. At a certain stage of Latin $s \sim r$ alternation of *honos* : *honoris* is automatic because there is no s/r contrast in intervocalic position. At the later stage of Latin when words like *causa* appear due to the sound change $ss > s$ the alternation in the above allomorphs is turned into a non-automatic alternation. The automatic alternations are either unilateral or bilateral depending on whether an archiphoneme can be set up only in the position of one of the alternants or whether there can be archiphonemes in the positions of both the alternants. The $s \sim r$ alternation above is unilateral because an archiphoneme can be set up only in the position of r alternant. The $c \sim k$ alternation in $-s/-u$ at some stage of Indo-Iranian is a bilateral alternation because we can set up archiphonemes in the positions of both the alternants.

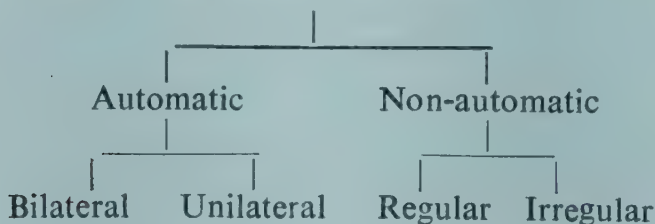
The non-automatic alternations are regular or irregular depending on whether the alternation is exceptionless or with exceptions. At the stage when intervocalic ss became s in Latin one can still say that "a morpheme if it has s in final position will have r instead in intervocalic position". That is $s \sim r$ alternation is still exceptionless and therefore it is regular. The alternation $f \sim v$ in English *wife/wives* on the other hand is irregular. One cannot make an exceptionless statement either for morphemes with f or for morphemes with v .

The first problem of vagueness regarding the number and interrelations of alternations stems from the following. For Hockett irregular automatic alternation is logically possible. For an $x \sim y$ alternation in the environment $-\#/v-v$ to be automatic it should be that either x is not possible in $v-v$ or y is not possible in $-\#$ or both. While for it to be an irregular alternation not only that x should be possible in $v-v$ and y should be possible in $-\#$, but also there should be morphemes with x in $-\#$ which keep their x in $v-v$ and there should be morphemes with y in $v-v$ which keep their y in $-\#$. Therefore, unless I have presumed Hockett's grounds for automatic/non-automatic distinction wrongly, irregular-automatic alternation is not possible. Hockett's characterization of a regular alternation is also not precise. A "most frequent" alternation can still not be frequent enough to be exceptionless. Hoenigswald in one instance calls an

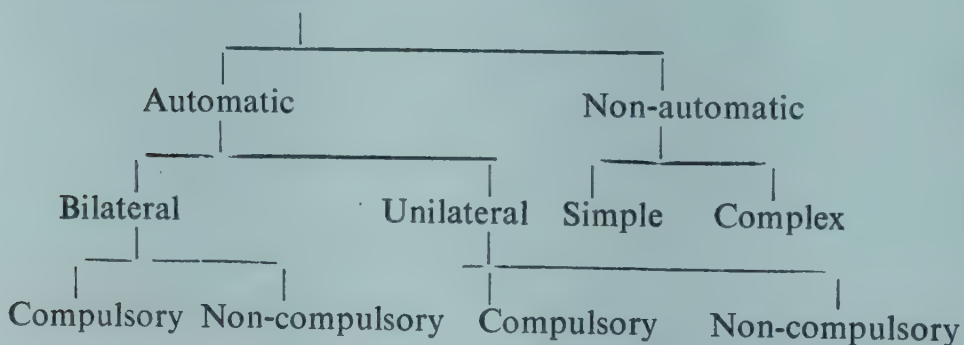
alternation "regular and automatic" (P. 108). Unless he is talking for people for whom the term automatic is not transparent, automatic includes regular.

Bhat's (1962) scheme of alternations can be derived by giving priority to morphophoneme. Before we comment on his scheme let us put, following Bhat, Hockett-Hoenigswald's (H-H) scheme in a tree diagram form along with Bhat's scheme. Bhat nowhere says that his scheme is based on giving priority to morphophoneme, but then neither Hockett nor Hoenigswald says that their scheme is based on giving priority to archiphoneme. They are implications, we

Hockett-Hoenigswald's Scheme :



Bhat's Scheme :



are spelling out. Bhat's use of *wife/wives* as the example for non-automatic distinction is based on the generality of the alternation². The same principle that is used for regular/irregular distinction used above. His use of *d ~ t* alternation in German as well as Sanskrit for his compulsory alternation suggests that the compulsory/non-compulsory distinction is based on the presence or absence of archiphoneme: The same principle that is used for HH's automatic/non-automatic distinction. In Bhat's scheme morphophoneme is superordinate while archiphoneme is subordinate. In HH's scheme it is the reverse.

We feel there are some grounds for calling the latter of the two situations as more natural. Sound changes that go by the name split

2. Mehendale (1973) points out the incorrectness of Bhat's example of non-automatic complex type.

essentially depend on positional variants of the system of phonology. Archiphoneme is a special type of positional variant of this system. A primary split either creates an archiphoneme or only changes the phonetic nature of an existing archiphoneme. The creation of a new archiphoneme correlates merger while the change in the phonetic nature of a sound correlates reassignment. If the conditions are favourable a primary split in addition to effecting or affecting an archiphoneme. The morphophonemes of Bhat's alternations are only such morphophonemes which are incidental to archiphonemes. They should have been subordinated to archiphonemes.

HH's scheme is more natural and elegant in one other respect. Single subsequent changes can turn a bilateral alternation into unilateral into regular into irregular³. Irregular is one of the stages of an alternation from which the alternation can begin to get levelled. Compared to this in Bhat's scheme a compulsory alternation changes into non-compulsory, which, then changes into non-automatic: In the last step the nodes or levels jumped are one to many. In his scheme a change from a bilateral alternation into unilateral one will require a very unusual kind of morphological change, which will face a lot of resistance. You have an $s \sim r$ alternation in $- \# / v - v$ and then a morpheme is borrowed with s in $- \#$ and is allowed to keep its s in $v - v$, a rather impossible thing to happen.

The question that immediately comes to mind is this: why Bhat wants to have the scheme of alternations in the way he has presented it? That too, in the face of another scheme which is well accepted and historically motivated. We do not find a convincing answer in Bhat's work. Bhat says his "distinctions are based on the occurrence or non-occurrence of alternating, non-alternating and opposing-neutral (sic) instances in the environments concerned". However Bhat's clarification of the point leaves a lot, wanting. Particularly, he has not shown how the presence or absence of these instances force the type of scheme he has given. Harris (1951 : 376) talks about automatic and non-automatic morphophonemic lists. We find some correlation between Harris's distinction and that of Bhat's. However, for one thing Harris is not concerned with compulsory non-compulsory distinction. He does not have to as he is giving a

3. This, of course, does not mean that only a bilateral alternation can be the direct result of a split. A unilateral alternation also can be the direct result of a split. Actually the only hope for internal reconstruction is the later type of alternation, if we can keep it separate from a unilateral alternation which comes up via a bilateral alternation.

scheme for non-historical description of autonomous morphology⁴. Another, the morphologically conditioned alternations will be automatic in Harris's scheme. Bhat's scheme restricts itself to phonologically conditioned alternations.

Morphologically conditioned alternations (resulting from secondary splits) which are not included in the above schemes are also called irregular alternations by Hoenigswald. Hockett simply calls them morphologically conditioned alternations. Bhat does not talk about these alternations at all. One, I think, can give two reasons for Hoenigswald's calling these alternations irregular: (i) like phonologically conditioned irregular alternations they involve some listing. In phonologically conditioned irregular alternations we have to list either the morphemes in which the alternation obtains or the morphemes in which the alternation does not obtain. Here too, we have to list the morphemes which condition the alternation. (ii) like with phonologically conditioned irregular alternations with morphologically conditioned alternations also the alternation can get easily levelled.

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[This article will be discussed in the next issue Ed:]

4. Chafe's (1959 : 452) one type of automaticity corresponds to that of Harris's while another which he prefers for historical purpose corresponds to that of HH's.

TWO STYLES OF SOCIOLINGUISTIC RESEARCH

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I

Linguistics has been defined variously. One comes across a somewhat naive definition of linguistics as *the science of language*. Present-day linguistics does not exhaust the study of all kinds of activities called speech and language and falls short of satisfying the anthropologists' interests in linguistic phenomena. There is a group of linguists, however, who will like to define linguistics narrowly. For instance, the American linguist H. A. Gleason opines that the primary concern of linguistics is the structure of language. He considers linguistics as "the science which attempts to understand language from the points of view of its internal structure". (Gleason, H. A. 1961, p. 2). According to Hockett, language can be broken down into five principal subsystems. The three central subsystems are 1. The Grammatical system. 2. The phonological system and 3. Morphophonemic system. These three are called 'central' to Hockett because they are not directly connected with the non-speech world in which speaking takes place. Hockett unequivocally declared that linguistics has concentrated on the three central subsystems, without much concern to peripheral systems (Hockett, C. F. 1973, p. 138). The two peripheral subsystems, unlike the central ones impinge both on the non-speech world and on the central subsystems themselves. Gleason concedes that the reason for the methodological rigour and definitive results in (structural/descriptive) linguistics has been because linguists have been "favoured with the most obviously structured material with which to work" (1961, p. 11). Hockett says that the peripheral systems are not unimportant but are "much harder to study and that so far, less has been learned about them" (1973 p. 138).

One can infer from these views that a linguist is much interested in retaining the methodological rigour. A descriptive structural

linguist has a fear of losing his grip if he is to cross into peripheral subsystems. This view is the culmination of the movement known as structuralism which started with the publication of 'Cours de Linguistique Générale' of Ferdinand de Saussure posthumously in 1916. In structuralism the language spoken by a particular speech community possesses a certain structure. This structure can be studied and described independently of the substance (socio-cultural setting) in which it is realized. Spectacular success of (structural) linguistics in the twentieth century in isolating the basic unit of the sound system of a language has been, it is generally conceded, in isolating language from the rest of culture and thus establishing its autonomy through the analysis of self-contained linguistic structures.

For two thousand years in the West, grammars of languages had been considered to be word-based. Working with the unwritten languages of the American Indians, the American anthropologists had realized at the turn of the century, that it was extremely difficult to decide what the words were in an unwritten language. The search, therefore, was on for a set of minimal units of grammar of a language which could be analyzed with the same ease and facility as a phoneme. David Crystal aptly puts it, "the idea that there might be an explanatory concept as validly applicable to grammatical analysis in all languages was tantamount to the suggestion that here was a linguistic 'philosopher's stone'." (Crystal, D. 1971, p. 187).

When Bloomfield and some other scholars started putting phonemes in sequences, it resulted in more rigour on the description of the linguistic forms in the field of grammar. As a result of it, it was conceded that the phenomena dealt with under the heading of grammar could finally be broken down into the basic units called "morphemes". In this manner the problem faced in dealing with word-based grammars was taken care of. The beauty of the generalized concept of morpheme was that an analysis of the structure of morphemes of a language led one straight into its phonology. The discovery of the morpheme and its intimate link with the phoneme concept was a great triumph of structuralism in linguistics. It established the efficacy of the procedures for linguistic analysis, which are based on the assumption that "linguistic data are in essence amenable to empirical treatment, and that the techniques necessary for this can be inferred from a common-sense consideration of some of the consistently observable characteristics of natural languages. The aim of such an approach is to provide a frame for the acquisition of reliable knowledge about languages, rather than a systematization or "explanation" of things already known or assumed to be known." (Garvin, P. 1964, p. 7).

It may not be out of place to mention here that with the morpheme the higher level of structural analysis next to that of phoneme was established, and this task was accomplished keeping the concept of meaning still at the periphery.

After the cultivation of morphology in the thirties and forties of the present century, syntax attracted attention in the 1950s. Noam Chomsky built on the work of his teacher, Zellig S. Harris. Through his "Syntactic Structures" published in 1957, he made syntax the centre of attraction in linguistics. His contribution is distinctive for two reasons. Firstly, syntax became the key topic for linguistic analysis in place of phonology and morphology. Secondly, the procedure which he advocated was fundamentally different from the one followed in structural linguistics. Up to the mid-fifties structural linguistics was scientific and its empirical procedure was the scientific method par excellence for the discipline. Chomsky presented a rival procedure of linguistic analysis which is not limited only to syntactic level of a language. Before the publication of "Syntactic Structures", as can be inferred from the quotation from Garwin mentioned above, the application of a scientific method was supposed to be based on inductive generalization by first observing and systematically describing the events. A description of linguistic data determine the construction of a theory, not the other way round, the goal was to apply inductive procedures to phonological data to arrive at abstract underlying structures. The question of tackling grammatical structure would arise only after the phonological structure has been laid bare. If the steps leading to the discovery are stated explicitly, the internal structures abstracted would be considered to be valid.

In contrast to this inductive view of scientific method in linguistics, the deductive approach favours a clear enunciation of the assumptions and expectations at the outset. These are then notified to construct a theory from which empirical consequences can be deduced according to general principles of logic and subsequently tested by observation. John Lyons states that 'although the inductive approach is still advocated in many standard textbooks of linguistics, the deductive approach has been gaining ground in the last few years, especially in connexion with the development of generative grammar.' (Lyons 1971, p. 8). Though the task of phonology is to establish a link between grammar and phonetics, it has not been accomplished through the structural analysis, because in dealing with phonemics or phonology, grammatical facts have been excluded or ignored. Morphophonemics was introduced as another level of representation to overcome this difficulty. Chomsky has not only

given us transformational generative grammar, but has been attempting to do grammatically oriented phonology as well. In contrast to the structuralist approaches to phonology, the generative view first states syntactic structure and then goes on to phonology making use of the relevant syntactic facts. This amounts to reversing the order of treatment of the linguistic facts from phonology to morphology to syntax.

II

In his "Language", Bloomfield has written thus "the statement of meanings is therefore the weak point in "language-study" (Bloomfield, 1933 p. 140) and further that "the signals can be analyzed but not the things signaled about. This reinforces the principle that linguistic study must always start from the phonetic form and not from meaning..." (Bloomfield 1933 p. 162). Such statements have led to a belief that the American descriptive linguists analyse linguistic structure without reference to meaning. It will not be fair to say that the Bloomfieldians were opposed to the use of all kinds of meaning. A descriptive structural linguist is not interested in defending the common uses of meaning by making it the basis of analysis, classification and determination of the content of the linguistic definition and descriptive statement. In Charles C. Fries' words "... On all levels of linguistic analysis, certain features and types of meaning furnish a necessary portion of the apparatus used" (Fries 1971, p. 101). The linguist knows that meaning of some kind and some degree forms a necessary part of the framework. But he doubts whether meaning can be studied with the same rigour and objectivity as phonology and grammar. He therefore is wary of using meaning as a variable in his linguistic analysis because "meaning is a variable not subject to any precise control. It will never be safe to use it alone, but only in combination with some facts of distribution" (Gleason 1962, p. 19). Nobody denies that a limitation of the role of meaning, not casting it off altogether, was probably necessary for analyzing the internal structure of a language which was the primary task of descriptive structural linguists. Kroeber has very succinctly summarized this trend in modern linguistics in these words "... the apparent antisemantic attitude of recent modern linguistics is the result of having developed an operational and pragmatic procedure that gives clean-cut immediate recognition of the elements, patterns, and structure of languages. No linguists deny meaning nor do they deny that ultimately the relation of linguistic structure and meaning is a problem which will have to be admitted and attacked. It is just that pure linguistic science is so much more developed and better organized than semantic science that

linguists find they can travel faster and farthest with a minimum encumbrance of the semantic baggage. (Kroeber, 1964 in Hymes ed. p. xviii).

This statement applies not only to the work in the field of phonology and morphology alone. Chomsky goes even farther in saying that "grammar is autonomous and independent of meaning". (Chomsky 1962 p. 17). He further states that systematic semantic considerations are not necessary for unravelling the underlying syntactic framework but the latter can support semantic analysis.

Let us concede that meaning can be viewed in more than one way. Charles C. Fries talks of "structural", "lexical" and "socio-cultural" meanings. But to Chomsky, opposition of "structural" meaning to "lexical" meaning appears to be quite suspect. As Faust puts it, a structuralist only needs to know that meaning is there. Since he uses meaning as a tool of structural linguistics he need not be able to put his finger on it. He is interested therefore in differential meaning (Faust, 1971 p. 93). The linguist does not need to know what the meaning content is. He is primarily interested in establishing whether two given examples differ with regard to meaning or not. A difference in meaning leads him to suspect a difference in form which he then tries to spot out and describe. In contrast to it the subject matter of semantics is concerned with referential meaning.

The typical attitude of a descriptive-structural linguist is represented in the following statement of Charles C. Fries "*any use of meaning is unscientific* whenever of our knowing the meaning leads us to stop short of finding, the precise formal signals that operate to convey that meaning". (Charles C. Fries 1971 p. 110 emphasis ours). If a structuralist wants to do socio-linguistic work he will have to modify his limited concept of meaning. He will have to learn to look at language as not something autonomous but as an integral part of a people's culture. We do not mean to say that a good structural linguist cannot be a good sociolinguist. But his basic assumptions centred around the limited use of meaning, isolating language and treating it as a system complete in itself and doing linguistic analysis through a few isolated statements from a single informant will prove to be positive hindrances. Moreover he may be bothered with the lack of "scientific rigour", which he has become used to in his phonological and morphological studies. In fine, the basic tenets of structural linguistics may come in the way of serious sociolinguistic work unless they are modified and adapted to the new situations.

Do we mean to say that there is not much in the repertoire of modern linguistics which is suitable for sociolinguistic studies? We certainly do not mean this. But we believe that Pride was making a mistake when he compared the characteristic approach of ethnographer and of the descriptive linguist because, in his view, both made use of "introspection" (Pride 1971, p. 294).

III

Historical and comparative philology in the nineteenth century worked through written documents. It was forced to posit the idea of a standard language in all kinds of its activities not excluding the reconstruction of a parent language. Structuralism in linguistics is usually supposed to be antithetical to what nineteenth century philology stood for and did. But strangely enough, the two trends in linguistics are one in working with a standard language by ignoring variety in language and speech as either unnecessary or hindrance in attaining their avowed goal. There is however, a trend in linguistics older than structuralist movement which starts with the assumption that language varies not only from individual to individual but from one segment of speech community to another. Usually known as linguistic geography, it is concerned with correlating variations with geographical as well as, social factors. This trend, more than either nineteenth century philology or twentieth century structural linguistics, constitutes, in the words of Robert A. Hall, "One of the links between linguistics and anthropological-sociological analysis" (Hall 1969 p. 239).

It will be pertinent here to remark that the linguists entering the field of study of language in society and culture are likely to find an easy entry to sociolinguistics via social dialectology rather than through standard procedures. But from the point of view of procedure utilized the studies in linguistic geography cannot take a linguist very far because dialect studies have been especially successful in explaining individual forms. Dialect geographers have concerned themselves primarily with single items than with structures or substructures of language. That is why the famous American sociolinguist William Labov used new techniques in his study of social dialects in New York city, focussing primarily on the speech and its relation with social strata. He did not concentrate on the so-called good dialect speakers who happen to be long term local residents. Depending upon the frequency in everyday use he isolated a small number of phonological and grammatical features which were locally current. These class-stratified features were subject to interpersonal and stylistic variation and also carried very great amount of social information. He chose

a representative sample of speakers of the locality concerned. He used the tape recorder to record talk in both formal and informal contexts. This study was modelled after the well-known sociological survey investigation. Mapping his data along the two dimensions of stylistic variation and social identity of speakers, he was able to establish a correlation between social class and ethnic identity on the one hand and the dialect variables on the other. The studies by Labov and those who follow his lead for social dialectology in an urban setting are quite valuable for the theoretical side of sociolinguistics. But they also aim at providing linguistic information for reforming the urban primary school curriculum. As Gumperz puts it, "Typically these studies employ tape-recorded questionnaire data with statistically representative population samples and seek to relate the distribution of linguistic variables to the sociological measures of such factors as class, educational achievement, sex, status, etc." (Gumperz 1972, p. 12).

Basil Bernstein of London University has acquired a great name as a sociolinguist. Like Labov, he also shows interest in practical issues of education, but he holds the view that it is possible for sociolinguistics to contribute to general social theory and the sociolinguists must do so. This is based on the simple premise that speech systems are generated by patterns of social relations and therefore they cannot be accounted for without reference to the theory of social relations. Bernstein holds that syntactic and lexical selections are conditioned by the context. His work shows that sociolinguistic research may begin as an extension of linguistics but it can realize its full potential only as a contribution to social science. His work emphasises the value of studying man as a social being through his language. He emphasises the need to study functions of speech and demonstrates how a particular speech or language transmits a particular culture or subculture. He believes that, "there are distillations or precipitations from the general system of meanings which inhere in linguistic codes which exert a diffuse and generalized effect upon the behaviour of speakers. What I am tentatively putting forward is that imbedded in a culture or subculture may be a basic organizing concept, concepts or themes whose ramifications may be diffused through which the culture or subculture is realized transmits this organizing concept or concepts within their gestalt rather than through any one set of meanings." (Bernstein 1972, p. 49495). As Gumperz points out, Bernstein's work is particularly important because, in his view, it provides a theory which is stimulating and gives immediate theoretical point to ethnographic work.

Anthropologists are attracted towards Bernstein's work also because he began his first major theoretical contribution on a Whorfian note expressed in these words: language exists in relation to a desire to express and communicate; consequently the mode of a language structure the way in which words are related-reflects a particular form of structuring of feeling and so the very means of interaction and response to the environment (as quoted in Lawton, Denis, 1970 p. 76-80). To begin with Bernstein was under the typical Sapir-Whorf umbrella holding the view that language determines certain forms of observation and interpretation. But subsequently he changed his "linguistically determined" theories by positing that a public language is a function of a particular social structure, and therefore social structure, not language, was the primary force. Procedurally, Bernstein, like Labov, seems to be away from ethnographic study. For his paper entitled "Language and Social Class", he used a sample of sixtyone boys between the ages of fifteen and eighteen. None of these boys had been to a grammar school and all of them were of working class background. His sample also included fortysix boys of the same age from a public school. He used Raven's Progressive Matrices and the Mill Hill Vocabulary scale. For another paper on "Linguistic Codes, Hesitation phenomena and Intelligence" he used a tape-recorded, relatively undirected discussion on capital punishment. He used Goldman-Eisler technique of hesitation phenomena to measure verbal planning. This technique is used to measure frequency and length of pauses in speech sequences. His sample consisted of five groups, each containing five boys. In the first two groups there were boys from middle class. In the remaining three groups the boys were from working class.

Many an anthropologist is full of admiration for the sociolinguistic works of William Labov and Basil Bernstein. The admiration is more for the lead these two linguists have given in the study of language in its socio-cultural setting which the anthropologist has always considered essential from the perspective of his own discipline. Without underrating the value of this great contribution, we are of the opinion that however much the linguistic anthropologists admire the results of these studies, we may not be very comfortable in emulating the procedures followed by the non-anthropological enthusiasts' study of language in culture and society, not only from the point of view of prolonged interests of anthropologists in the study of language in culture, even in the heyday of structural linguistics, it was anthropology's insistence on studying language in culture known in the forties as ethnolinguistics which had contributed substantially to the emergence of sociolinguistics in the sixties. The famous Sapir-Whorf

hypothesis could not be rejected outright among others even by the most vocal advocates of the autonomy of language. The intensive field work study through the native language has given the anthropologist a unique opportunity to study culture through language. It is no doubt true that except for Bronislaw Malinowski, and recently Edmund Leach, others did not concentrate on the value and significance of linguistic codes in the cultural settings, though they had collected sufficient data to do so. It is wellknown that the famous British linguist, J. R. Firth was intellectually very close to Malinowski in discussing "context of situation". Lawton (1970) says that the Malinowski's term "context of the cultural reality" has not been taken upto the same extent by linguists as the term "context of situation". In his essay in Ogden, and Richards edited *The Meaning of Meaning*, (1923), Malinowski opined that in a primitive language the meaning of a single word is dependent on its context. In his essay on "culture", which he contributed to *The Encyclopaedia of the Social Science* edited by Seligman, published in 1930, he again wrote that "the meaning of a word is not mysteriously contained in it but is rather an active effect of the sound uttered within a *context of situation*". (Malinowski 1930, p. 622, emphasis ours). Even though J. R. Firth may not have coined the term he is undoubtedly responsible for its wide currency in linguistic circles.

Our contention is that the intensive fieldwork tradition enables an anthropological linguist to see language in sociocultural setting and context in greater depth than it is possible through a questionnaire or a tape-recorded transcript obtained in a sample social survey. The ethnography-based sociolinguistic study will not be like stimulus-response psychology which seems to have been the mainstay of sociolinguistic studies conducted by non-anthropological linguists. At present, in the euphoria of having won a respectable place for the study of a peripheral subsystem, we may gloss over this very basic procedural difference, but it seems to us that, not before long they may start being recognized. Or who knows there may be real synthesis both in the goals as well as procedures of sociolinguistics. We are fully aware that there is a very able group of anthropologists who are saturated with the procedures and findings of structural linguistics. They are quite hopeful of extending the structural perspective in the field of semantics. They talk of 'new ethnography', and refuse to accept this as mere description. Most of their meaningful contributions have been in the field of ethno-semantics, particularly in the componential analysis of kinship terms and working out of folk-taxonomies. The work is very valuable and is also in line with the anthropological interest of language in culture. But this does not form a part of sociolinguistic studies as is generally understood.

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LINGUISTIC ATLAS OF THE PUNJAB

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Introduction

The Linguistic Atlas of the Punjab* has been published by the Department of Antropological Linguistics of the Punjabi University, Patiala. Besides introductory studies of Punjabi phonology and grammar, it has 21 linguistic maps of the older undivided Punjab beginning from Rawalpindi and covering such regions as Jammu, part of Himachal Pradesh and a major portion of what is included in Haryana today. It gives a very general idea of the spread of certain characteristics of Punjabi phonology such as tones and vowels. This section is reinforced by a Phonetic Reader based on the story of Puran in 25 already recognised "dialects".

The second section represents intensive study of phonetics and vocables in the present state of Punjab. It is based on field work conducted at 203 points. The original list of words elucidated included more than 600 words supplemented by extensive recordings at each point. For this Atlas we have selected only 101 representative words.

As it was envisaged in the Survey Project presented in 1968, the linguistic atlas is only a graphic representation of a vast spectrum of speech variation in any natural linguistic region. Since the term Linguistic Survey was used by Grierson there is a continuous tradition of misunderstanding of what is expected of such a scheme. All that is represented by Grierson's survey is a very general and rough description of certain speech variations and the enumeration of what may be called dialects in non-linguistic terms from the popular folklore. The tradition of linguistic atlases follows from the pioneering work of the French Linguist, Gillieron. The linguistic Atlas of the

Note: This note is a revised version of our paper presented at International Conference on Dialectology held at Nice, France, in 1972.

Punjab represents more or less the same linguistic approach with more scientific rigour that was possible due to new developments. These maps not only invalidate the operational value of the concepts of "idiolect" and "dialect" by its graphic representation of extreme linguistic complications in each of its maps but also contradicts the usual notions of what is expected of a linguistic survey. Two major conclusions can be drawn from these maps. The first points to certain broad features of the history of the Punjabi language which has been the tradition of the dialecticians on the Continental Europe. The second conclusion is purely ethnographic. Off and on we come across with regions of speech enclaves which raise the question of possible migrations in the past which may be as recent as about a hundred years and sometimes as old as five to six hundred years.

The Survey Project at Patiala has also collected glossaries from certain specific points for general dialectical work. In a very few cases, depending upon our man-power, we have tried to see the register of speech variation on the basis of profession and castes. The second part of this paper refers to this problem. It is obvious that at any given point other minor phonetic variations are possible due to ethnographic status of the informants. No linguistic atlas is possible on the basis of such variations. Only a naive critic who does not understand the dynamics of linguistic structure can jump at the discovery of another phonetic realisation at the same point. The linguistic atlas is also not supposed to deal with what is generally called sociolinguistics, whatever that means, since no sociolinguist in the American tradition from Sapir to Labov has deviated from the description of the expression system of the language. Hence, the term sociolinguistic in descriptive linguistics or generative approach is only a misnomer and infact a definite misuse of this term which refers clearly to the cultural content. In Gillieron's atlas there was a certain mixture of parameters of speech variations where we know very well that he or rather his student Edmont mixed up standard French with various forms of local French and regional patois. In the Linguistic Atlas of the Punjab, we made an effort at achieving a constancy of speech by restricting our informant group to one community and more or less one age group.

As we have already pointed out the linguistic atlas is nothing more than the first contact with speech variations. It only points out the historical and ethnographic movements which must be investigated separately as it is being done at Patiala. But there is no escape from this first contact. Unless we have graphic representation of speech variations we cannot talk of a linguistic or a dialect survey. The description of individual dialects is an entirely different proposition and must not be included in and confused with survey projects.

One of the main problems of a dialect survey in the Punjab and for that matter in the rest of India also is what may be termed as that of speech behaviour according to castes. In the past we have had studies of such caste dialects but there has been very little if anything available on the dynamics of linguistic function based on interaction of these different speech parameters. Secondly, the caste dialect descriptions have always been considered as something extra i. e. which do not belong to linguistic description proper and it is noted only if one is interested in what is called socio-linguistics.

It is fairly well established now that the description of an idiolect as a basis of linguistic function is not very satisfactory but even the description of the speech behaviour of a dominant group tells us very little about the various pulls and pushes of a linguistic structure.

This problem has been one of the major concern of the Linguistic Survey Project at Patiala. An atlas has been prepared on the basis of speech parameter of the dominant group called Jats and the atlas in being supplemented by village studies where linguistic interaction based on caste differences has been noted. At several points it has been seen that the particular phonetic feature that divides the whole region of the Punjab into different areas of speech variations is found right in just one village. We mention two such studies in this note.

The first investigation was carried on in a village named Badala in the district of Ropar. Traditionally this area is classified as a region of Powadhi dialect. The sociological composition of this village is as follows:-

| | |
|-----------------------------|----------|
| Brahman | 1 family |
| Rajputs | 6 „ |
| Jats | 57 „ |
| Sainis | 2 „ |
| Nais | 1 „ |
| Bania | 1 „ |
| Carpenters-Takhan and Lohar | 3 „ |
| Kumhar | 1 „ |
| Sainsi | 10 „ |
| Ramdasiyas-Camar | 10 „ |
| Balmikis | 10 „ |

For all practical purposes there are three main groups which have residential contiguity and as such play a distinctive role in speech variations. The major group is that of Jats with 57 families but the Rajputs, Sainis and the only family of the Brahman also live in the same area. The second geographical entity is that of Nais, Bania, Takhan and Lohar. Obviously this is a very small group of artisans

who help the peasants and the landowners in a variety of ways. The third group is that of Sansis, Ramdasias (Camar) and Balmikis with 10 families each and a Kumhar family. Economically and socially this is the most underprivileged class but these workers for the landowners have a distinct culture without which the cultural complex of a village is never complete. There is never a question of social or linguistic intergration. All the same, this group is very much a part of the overall pattern. Their backwardness is only economic and no cultural prejudices can be derived from it for the simple fact that no member of this group ever aspires to be ethnically a part of the other.

We give below the speech parameters of five sub-groups :—

1. *Lexical items* :— /póra/ 'cave'; /nã/; 'name'; /jao/ 'go'

| Sub-group | Phonetic realisation | | |
|-----------|----------------------|-----|-----|
| Jat | p'əora | nəõ | jəo |
| Takhan | pòra | naõ | jao |
| Lohar | pòra | naõ | jao |
| Camar | p'ɔra | nõ | jɔ |
| Kumhar | p'ɔra | nõ | jɔ |

The ingliding diphthongal pronunciation of /pòra/, nã/, /jao/ as [p'əora], [pəõ]. [jəo] respectively is generally confined to Jats. Camars and Kumhars have low back vowel /ɔ/ instead where as Takhans and Lohars have mid back vowel /o/.

2. *Lexical items* :— /hoIa/ 'happened'; /dIa/ 'gave'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|-------------------|
| Jat | hoe ^y a | de ^y a |
| Takhan | hoI ^y | dI ^y a |
| Lohar | hoI ^y a | dI ^y a |
| Camar | hoya | deya |
| Kumhar | hoIa | dIa |

The palatalized pronunciation of the opening diphthong /Ia/ is generally confined to Jats, Takhans and Lohars. Camars pronounce the diphthong by converting its first part into a palatal itself so that the pronunciation is [ya] but the Kumhars pronounce it only as a pure diphthong [Ia].

3. *Lexical items* /saɖa/ 'our'; /tUáɖa/ 'your'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|-------|
| Jat | saɖa | thàɖa |
| Takhan | saɖa | thàɖa |
| Lohar | saɖa | thàɖa |
| Camar | saɖa | thàɖa |
| Kumhar | saɖa | tUàɖa |

The retroflex voiced stop in the intervocalic positions in /saḍa/ and /tʌḍa/ is pronounced as a retroflex flap [ɾ] by Jat and Takhan, as a weak retroflex flap [ɽ] by Lohar and Kumhar but Camars pronounce it as a clear retroflex voiced stop [ḍ].

It is obvious that in this village the pure vowels /o/ and /ɔ/ and the diphthong /ɔo/ are in conflict. Hence the functional load of the distinction in this region of the back vowels is not very high and in future they might even merge with each other. The second example is a question of the front vowel /I/ and its palatalized form in [Iʲa]. This replacement is quite common but its occurrence here can certainly have effect on the distinctive value of the two front vowels /I, i/. In the third example, the conflict is between the retroflex flap /ɾ/ and the retroflex stop /ḍ/. It is interesting to note here that most prevalent feature amongst the Jats of the other areas of the Punjab is the retroflex stop /ḍ/ but in this village it is assigned to Camars. Such cases are particular only to one locality and their alternants in other villages or regions of the Punjab are not uncommon. Hence, we cannot derive any conclusion about the general caste dialects. Speech variations have sociological connotations only in terms of the small cultural complex such as a village. Their inconsistency over a larger area adds to the difficulties of marking regions on the basis of speech behaviour.

The second study briefly introduced here was carried on in a village called Ram Nagar (District Bhatinda). In this village only the women informants were interviewed. Most of the earlier studies about the speech habits of women have been conducted in order to present differentiation of speech parameter between men and women. The reasons for our choice of women were primarily motivated by the fact that women stick to their caste parameters more consistently than men.

As in the first study some of the results of this field work are quite interesting. The difference across the caste parameters are shown in terms of the use of retroflex or dental nasal, absence or presence of a particular tone, the use of different tones, and general vocalization. Some castes do not use the retroflex nasal though it is not consistent. For example in /bɔ'ṇa/ 'to comb', the Tarkhan, the Brahmin and the Bania women do not have retroflex. But in /tɔṇa/ 'to wash' only Ramdassia and Bania have dental nasal and in /ɔṇa/ 'to come' we have another picture altogether. Ghamar, Tarkhan and Bania do not have retroflex. The main point here is that though retroflex nasal has a very high functional load, it is certainly to conflict with the dental nasal. In a few words some castes make use of this differentiation to present a different behavioural pattern.

For tones also we have a complicated situation. For /pətɪ'ɔra/ 'father-in-law's elder brother', the Jat, the Ramdassia, the Brahmin, the Nai and the Jhior have low tone, whereas the Bania has high tone and the Tarkhan, the Majhbi and Ghamar have mid tone. This reflects a fairly classical situation as to how the Punjabi language has evolved where the realization of tones varies considerably when historically they are not developed from voiced aspirates. The tones are there but their fixation on particular words is not settled in terms of standard Punjabi and this tonal conflict shows why we have this situation.

The variation in the realization of the vowels may be seen in a word for 'Monday'. It varies from /ə/, /o/, /U/ to /e/. All these vowels are phonemic for all of these castes but their variation is mainly in specific words. All the same it shows that the functional load of the opposition of these four vowels is not very high. The same is true of /ə/ and /ɛ/ as in the word for /pɔ̃cmi/ where we have [pəcmi] and [pɛcmi] across the caste parameters.

We have studied nine castes in this village. A few examples are given below to show the possible phonological conflicts amongst a fairly intergrated community of one village constituted of these nine social elements.

1. Lexical items : /sɪr bɔ'ɳa/ 'to comb'; /hələk/; /bəlɖ/ 'bull' 'gullet'

| Sub group | | Phonetic realisation | |
|-----------|-----------------|----------------------|-------|
| Jat | baɭ b'ɔɳe | həlɖk | bəlɖ |
| Bania | sɪr ba'na | həlɖk | bɛɭ |
| Ramdassia | baɭ sɪ'dde kəɳa | həlɖk | bə'ɭɖ |
| Brahmin | sɪr b'ɔna | həlɖk | bə'ɭɖ |
| Nai | sɪr b'ɔɳa | həlɖk | bə'ɭɖ |
| Tarkhan | b'ɔna | hələk | bə'ɭɖ |
| Majhbi | báke gUt kəɳa | hələk | bə'ɭɖ |
| Ghamar | sɪr bɔ'ɳa | həlɖk | bə'ɭɖ |
| Jhior | bɔ'na | sə'g | bə'ɭɖ |

2. Lexical items : /nɔ'ɳa/ 'to take bath'; /kən vɪnɳa/ 'ear-piercing'

| Sub-group | | Phonetic realisation | |
|-----------|-------|----------------------|--|
| Jat | n'ɔɳa | bl'nɳa | |
| Bania | n'ɔɳa | bl'nnna | |
| Ramdassia | n'ɔna | bl'nɳa | |
| Brahmin | n'ɔɳa | bl'nɳa | |
| Nai | n'ɔɳa | bən'ɔɳa | |
| Tarkhan | n'ɔɳa | bl'nɳa | |
| Majhbi | n'ɔɳa | bl'nɳa | |
| Ghamar | n'ɔɳa | bər'ɔɳa | |
| Jhior | n'ɔɳa | bən'ɔɳa | |

3. *Lexical items* /sone diā cuṛiā/ /somvar/ 'Monday'
'golden bracelets';

| Sub-group | Phonetic realisation | |
|-----------|----------------------|--------|
| Jat | sIɔne | sɔmbar |
| Banian | sóne | sɔmbar |
| Ramdassia | sIɔne | sombar |
| Brahmin | sone | sombar |
| Nai | — | sombar |
| Tarkhan | sIɔne | sUmbar |
| Majhbi | siɔne | sɔmvar |
| Ghamar | sione | sɔmbar |
| Jhior | siɔne | səmar |

4. *Lexical items* /pə̃c̣mi/ 'the festival' Panchmi: /swɛ̃ṭər/ 'sweter'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|------------|
| Jat | pə̃c̣mi | sUãṭər |
| Banian | pɛ̃c̣mi | səb'ɛ̃ṭər |
| Ramassia | pɛ̃c̣mi | svãṭər |
| Brahmin | pə̃c̣mi | sUãṭər |
| Nai | pə̃c̣mi | səbɛ̃ṭər |
| Tarkhan | pɛ̃c̣mi | sUãṭər |
| Majhbi | pɛ̃c̣mi | səvãṭər |
| Ghamar | pɛ̃c̣mi | sõṭər |
| Jhior | pɛ̃c̣mi | səvãṭr |

5. *Lexical items* /pə̃ṭIɔ'ra/ 'father-in-law's; elder brother' /chaṇɳi/ 'sieve'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|---------|
| Jat | pə̃ṭi'ɔra | chãɳi |
| Banian | pə̃t'ɔra | chalni |
| Ramdassia | p̣ḷti'ɔra | chãɳi |
| Brahmin | pə̃ṭI'ɔra | chaṇɳi |
| Nai | pə̃ṭI'ɔra | chaḷɳi |
| Tarkhan | pə̃ṭi'ɔra | chaḷɳi |
| Majhbi | pə̃ṭi'ɔra | ʃaḷɳi |
| Ghamar | pə̃t'ɔra | chalni |
| Jhior | pə̃ṭI'ɔra | chãɳi |

6. *Lexical items* /athəṇ di roṭi/; /kəchrəli/ 'a boil in
'evening meals' the armpit'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|----------|
| Jat | athəṇ di roṭi | kəchrəli |
| Banian | sɪam di roṭi | keəhrəli |
| Ramdassia | cham | kəchrəli |
| Brahmin | ṣam | kəchrəli |
| Nai | cham | kəchrəli |
| Tarkhan | athəṇ | khəhrəli |
| Majhbi | siam | khəhrəli |
| Ghamar | athəṇ | khəsrali |
| Jhior | athəṇ | kəchrəli |

7. *Lexical items* /sɪr mUnṇa/ : /ʃəlgəm/ 'turnip'
'to shave'

| Sub-group | Phonetic realisation | |
|-----------|----------------------|---------|
| Jat | sɪr mUnṇa | səgməl |
| Banian | ətarna | chəlgəm |
| Ramdassia | kəṭṭəne | səgməl |
| Brahmin | mUnṇa | səljəm |
| Nai | mUnṇa | səlgəm |
| Tarkhan | mUnṇā | səməgəl |
| Majhbi | mənṇa | səgməl |
| Ghamar | mUnna | semgəl |
| Jhor | kətrṇa | səgməl |

Conclusion

This note is only introductory and no attempt is made to present the whole complex phonological structure but we believe that it is sufficient to show that even in a small locality like a village with just a few families the linguistic interaction according to social differentiation is a permanent feature of the working of the language. In terms of dialect surveys it poses a very serious problem as to who should represent the region. In our atlases we were obliged to take only one group which was numerically dominant but obviously the maps made on the speech parameter of this community cannot be considered as representative of the overall socio-linguistic pattern.

RELATIVE CLAUSES IN MALAYALAM¹

A. P. Andrews Kutty

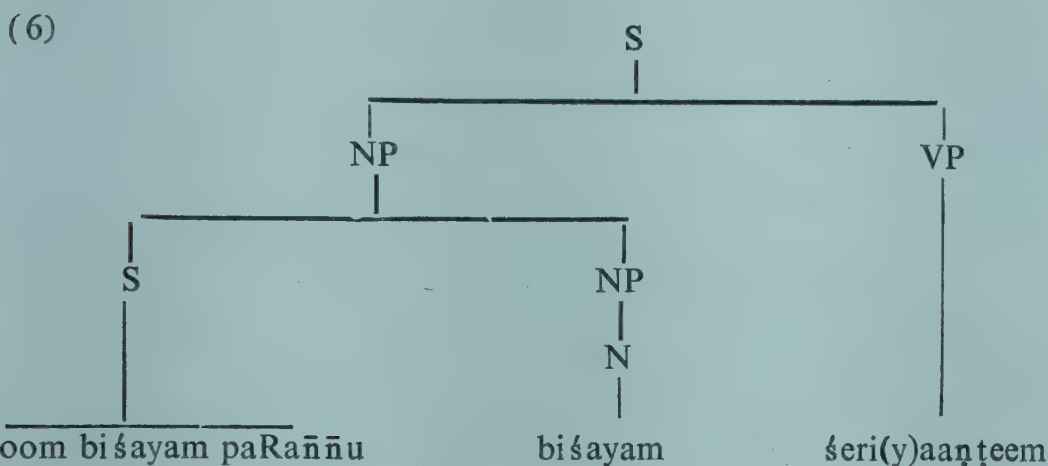
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Relative clauses are those sentences which are embedded in a noun phrase that directly dominates another NP in the sentence. The embedded sentences will involve an NP identical with the NP which is directly dominated by the matrix NP. Since the general nature of the process of modifying a noun phrase in a sentence is, in one way or the other, related to the relativization process, an account of the relative clause constructions would seem to be pertinent to the present analysis.

The process of relativization is mainly the transformation of the finite verb of the constituent sentence into a relative participle, which eventually gets linked to the subject NP in the sentence. The relative clauses fall broadly into two types: restrictive and non-restrictive.² The following are sentences with relative clauses:

1. oom paRaṇṇa biśayam śeri(y)aaṇṭeem
he said-which matter true-is
(The thing which he said is true)
2. aaḷa kollaṇṭa appal karaykku baraa
man-Acc. kills Octopus shore-to come-will-not
(Octopus which kills man will not come to the shore)
3. oom paRayaṇṭee baRattaanam baḷutaṇṇ-aaṇṭeem
he says-which news lie is
(The news which he says/gives is a lie)
4. atu naam konna iliyaṇṇ-aaṇṭeem
it I killed-which rat is
(It is the rat I killed)
5. itu ṇaṇṇiya teeṇṇaa(y)aaṇṭeem
this dried-which coconut-is
(It is a dry coconut)

The sentence (1) is derived from an underlying structure of the form (6). (Details are omitted here and also in the subsequent representations).



In (6) the constituent sentence is transformed into a relative clause as in (1). The process of relativization involves three transformational rules :

7. a. Adjectival VP shift which brings the VP around the subject NP in the constituent sentence
→ oom paRaññā biśayam
- b. [+ rel. part] insertion which links the extra-positioned VP to the subject NP :
→ oom paRaññā biśayam-biśayam.....
- c. The identical NP deletion which deletes one of the identical NPs to generate
→ oom paRaññā biśayam...

In general relative clauses in their deep structure are characterised by the presence of an element that is coreferential with the element which is directly dominated by the matrix NP (antecedent).³

The antecedents in the deep structures of sentence (1) – (5) above are always [-definite]. This is suggested by the very fact that it is the matrix NP that is [+ definite]. Generally proper nouns do not take restrictive relative clauses.⁴ But it is possible in Laccadive Malayalam when a definite individual is indicated from among a number of individuals who are known by an identical name. E.g.

- (8) tala beṭṭuṇṭa mahammuudu oññ-aaṇṭeem
head cuts-which Mahammud he-is
(He is Mahammud who cuts hair)

The non-restrictive relative clauses are different from the restrictive relative clauses, in that the antecedent and the relative clause do not

jointly form a constituent in the deep structure. Non-restrictive clauses of all types have a parenthetical quality. (Jacobs and Rosenbaum, 1968). However, it is generally accepted that the non-restrictive clauses embedded in sentences must originate from co-ordinate constructions. (Huddleston 1971). The naunce between the constructions may be discussed with reference to a pair of sentences given below :

- (9) miṭukkammaa, makka, pariicc (a)-ee jeyikkaṇṭa
the intelligent ones boys examination-in pass
(The boys, who are intelligent, ones, pass the examination)
- (10) miṭukkamma makka pariicc (a)-ee jeyikkaṇṭa
the intelligent ones boys examination-in pass
(The boys who are intelligent ones pass the examination)

In (9) the speaker is talking about /makka/ in general: He asserts two facts. One is that all the boys pass the examination and the other is that they are all intelligent. In (10) on the other hand it is ascertained that only those boys who are intelligent pass the examination but not all of them. This difference in interpretation stems from the difference in the deep structures of the two sentences. 'Non-restrictive relative clauses can have a truth value vouched for by the speakers and independent of the context in which they are inserted' (Bach 1968).⁵ In (9) and (10) the identical subject NP in the relative clause gets deleted.

- (11) makka miṭukkammaa (aaṇṭoom), makka, pariicc (a)-ee jayikkaṇṭa
→ miṭukkammaa makka, makka, pariicc (a)-ee jeyikkaṇṭa
→ miṭukkammaa, makka, pariicc (a) ee jeyikkaṇṭa
- (12) makka miṭukkammaa (aaṇṭoom)-makka pariicc (a)-ee jeyikkaṇṭa
→ miṭukkamma makka-makka pariicc(a)-ee jeyikkaṇṭe
→ miṭukkammaa makka pariicc(a)-ee jeyikkaṇṭa

In both the sentences /miṭukkamma/ is the nominal predicate, but it stands equivalent to the Subject NP /makka/ in (11) while it is only the attribute of the Subject in (10) as it is clearly pointed out by (12). All these would indicate that (9) and (10) consist of two sentences which are superficially the same and are structurally different in a deeper level. However, semantic considerations also would demand the treatment of (9) as one with a relative clause of a different type. In this context a sentence such as (13) can be said to excite further interest.

- (13) aantroottil paarkkaṇṭa nannaa aḷiyam naaḷa bayāṇṭa
Androth-in stays-which me of brother-in-law tomorrow is
coming.

(My brother-in-law who stays in Androth (island) is coming
tomorrow).

(13) is ambiguous, and the same may be interpreted with reference to
the antecedent in the sentence. It can be [+ definite] or [– definite].
This difference may be brought out clearly by interpreting (13) as
follows :

- (14) nannaa aḷiyam naaḷa bayāṇṭa-nannaa aḷiyam aantrootti (1)
paarakkaṇṭa

me-or brother in-law tomorrow is coming, me-or
brother-in-law Androth-in staying

(My brother in-law is coming tomorrow-my brother-in-law
stays in Androth (island))

- (15) nannaa aantrootti(1) paarkkaṇṭa aḷiyam naaḷa bayāṇṭa
me-of Androth in stays brother in-law tomorrow is-coming
(My brother-in-law who stays in Androth (island) is coming
tomorrow).

In (15) /nannaa/ is the attribute of the whole phrase /aantrootti(1)
paarkkaṇṭa aḷiyam/.⁶ In (14) on the other hand it is the attribute of
/aḷiyam/. (14) suggests the possibility of there being only one definite
person whom the speaker refers to and the fact would help us to inter-
pret also (13) as a sentence with a non-restrictive relative clause.

It is said that except in cases like (8), proper nouns do not
usually take restrictive relative clauses. So (16) can be interpreted as
a sentence containing a non-restrictive relative clause.⁷

- (16) piṭṭikku pooya, kaadaRu, baliya kaṭuppakkaaram
pitti-to went-which Kadar big rogue
(Kadar, who went to Pitti (island), is a rogue)

This is paraphrased as

- (17) kaadaRu piṭṭikku pooyi, kaadaRu, baliya kaṭuppakkaaram
Kadar Pitti-to went, Kadar big rogue
(Kadar went to Pitti(island), Kadar is a big rogue)

→ piṭṭikku pooya, kaadaRu, baliya kaṭuppakkaaram

This is the same as (16).

It is however interesting to note that (16) may quite possibly
receive a restrictive relative clause interpretation.⁸ Now compare (16)
with (18).

- (18) kaadaRu, piṭṭikku pooya kaadaRu, baliya kaṭuppakkaaram
(Kadar, who went to Pitti (island), is a big rogue)

In (18) /piṭṭikku pooya kaadaRu/ is only an assertion about /kaadaRu/ and hence it can only be a non-restrictive relative clause. Pronominalization of the identical NP in the relative clause would yield

- (19) kaadaRu, piṭṭikku pooyoom, baliya kaṭuppakkaaram.
Kadar, (he) who Pitti-to went-he big rogue.
(Kadar, (he) who went to Pitti (island), is a big rogue)

But once again if the same sentence is said as :

- (20) piṭṭikku pooyoom, kaadaRu, baliya kaṭuppakkaaram
(Kadar, who went to Pitti (island), is a big rogue)

It also permits a restrictive relative clause interpretation. Here it is correct to say that restrictive relative clauses are linked to their antecedents by a close syntactic juncture while non-restrictive relative clauses, in contrast, are characterised by open syntactic juncture with a difference in the intonation contour. The typical occurrence of the relativized clause before the head noun is to a greater extent responsible for making the interpretation of restrictive relative clause much more natural and ordinary. One can argue that the non-restrictive types are non-stylistic and are always less frequent in ordinary speech. However it is beyond doubt that they are not stylistic variants of the restrictive relative clauses for reasons relevant to semantic interpretation. This would force us to represent them differently in the deep structure.

The relativized NP can function as Object in the constituent sentence. In such cases the Subject NP retains its position in the relative clause and the relative participle form of the verb is moved to the front of the Object NP (the relativized NP). Since, in the Object position NPs do occur with case suffixes (marked or unmarked) they can be said to be deleted or alternately incorporated as the case may be (see 76). Now consider the following sentences :

- (21) naam kaṇṭa appal bampaṇṇi-aanṭoom
I saw-which Octopus big he-is
(The Octopus I saw was a big one)
- (22) niṇṇa kuRRakkaaraṇṇi-aakkiya maṇiṣam nallooṇṇi-aanṭoom
You-Pl accused-he made-which man good-he-is
(The man whom you accused is a good person)
- (23) itu naam beenṭiya payabu
this I bought which now
(This is the cow that I bought)

(21), (22) and (23) involve restrictive clauses. (21) can be derived as shown below.

- (24) naam appal-a kaṇṭu-appal bampaṇṇ-aaṇṭoom
 → naam kaṇṭa appal - appal bampaṇṇ-aaṇṭoom
 (by Adj. VP shift and [+ rel. part] insertion)
 → naam kaṇṭa appal bampaṇṇ-aaṇṭoom
 (by identical NP deletion)

During the process of relativization the accusative case suffix /-a/ is deleted,⁹

In all the three sentences discussed above the case suffix involved is accusative.¹⁰ Other case suffixes also are found to occur with NPs in the constituent sentence which is identical with the matrix NP in the underlying structure of relative clauses. Consider the following sentences :

- (25) niṇṇa kooṇaatiyoom ahalulloṇṇ-illa
 you-Pl. quarrelled-he intelligence having which he-not
 (The one with whom you quarrelled is a fool.)
- (26) naam beḷḷi kuṭukkaṇṭa baṇṭay nalla maṇcum paṇikkaaram
 I money give-which carpenter good very worker
 (The carpenter to whom I paid money is a very good worker.)
- (27) taaḷaṇṇ uḷḷa kuḷam peṭṭeṇṇu paRRaa
 depth having which pond quickly dry up to
 (The pond that is deep does not dry up quickly.)
- (28) puḷi(y) uḷḷa śuRukka śeetṭataaṇṭoom
 sour-having-which vinegar bad-is
 (Vinegar which is sour is bad.)
- (29) oom enna aṭicca baṭi naam ninakku kaaṭṭi-(t) tayaṇṭa
 he me-Acc beat-which stick I you-Pl to-having shown-give
 (I am showing you the stick with which he beat me.)
- (30) oom beṭṭaṇṭa katti naam malayaaḷattiiṇṭu beenṭi (y) ataaṇṭeem
 he-cutting-which knife I Malayalam-from that-which bought-is
 (I bought from Kerala the knife with which he is cutting something.)
- (31) baliya maṭṭa kiṭṭaṇṭa kooḷi ibaṭa empaaṭuṇṇ-uṇṭu
 big egg getting-which hen here plenty is
 (There are lots of hens here that lay big eggs.)
- (32) empaaṭum oyyaasukaarammaa bayaṇṭa diipam kaṭuṇṇoott-
 aaṇṭeem
 many Oyyasu-they-Pl. coming-which island Kadungoth is
 (Many (people) who usually perform Oyyasu come from the island of Kadungoth.)

- (33) atu naam balanna śeeri (y) aaṇteem
that I grew-which house-is
(That is the house where I grew up)

Sentence (25) is derived from an underlying structure which involve sentences (34) and (35).

- (34) oom ahaluḷoonṇilla
(He has no intelligence)
- (35) niṇṇa oonaakuṭa kooṇaati
(You quarrelled with him)

When a constituent sentence in the deep structure of (25) is turned into a relative clause in the surface structure the sociative case suffix in the relativized NP gets deleted.¹¹

- (36) niṇṇa oona kuṭa kooṇaati-oom.....
→ niṇṇa kooṇaatiyoom-oom.....
(Adj. VP shift and [+ rel. part.] insertion)
→ niṇṇa kooṇaatiyoom.....
(identical NP deletion)

Compared to this the NP-dative would present further transformational possibilities. The sentences (26)-(28) involve dative case suffixes.¹² For illustration (28) may be roughly represented as (37).

- (37) puḷi śuRukkee-kku uṇtu-śuRukka śeṭṭataaṇtoom
→ puḷiyuḷa śuRukka...

The dative case suffix gets deleted in the relative clause. Similarly the relative clauses in (26) and (27) are derived as follows:

- (38) naam baṇṭaykku beḷli kuṭukkaṇṭa
→ naam beḷli kuṭukkaṇṭa baṇṭay
- (39) taaḷam kuḷattuunṇuṇtu
→ taaḷanṇuḷa kuḷam

In (37) above the relativized NP is /śuRukka/. It would be interesting to investigate the relativization of the Subject /puḷi/ in sentence (28). Consider the following sentence.

- (40) śuRukkee puḷi maaRippeem
vinegar-of sourness changed-went
(The sourness of vinegar has changed)

(40) may be broadly represented by the following underlying structure.

- (41) puḷi śuRukkee-kku uṇtu-puḷi maaRippeem
→ śuRukkeekku uḷḷa puḷi.....

(41) can generate sentence (42) by relativization.

- (42) *śuRukkeekku uḷḷa puḷi maaRippeem*
vinegar-to having-which sourness change-went
(Sourness of the vinegar has changed.)

The same meaning is conveyed by the following sentences :

- (43) *śuRukkee puḷi maaRippeem*
vinegar-of sourness change-went
(The sourness of the vinegar has changed.)

In (43) /*śuRukkee puḷi*/ indicates a genitive relationship.¹³ The same relationship is reflected in (42) also, though the clause involves an NP-dat. The derivational process then is,

- (44) *puḷi śuRukkeekku uṇṭu*
→ *śuRukkeekku uḷḷa puḷi*
→ *śuRukkee puḷi*

The derivation would show that there seems to exist a relationship between the process of relativization and the formation of possessive constructions. This relationship is captured by deriving such NP-possessive (genitive) forms from relative clauses which involve a verb of the 'be' form and also the dative case relation of the relativized NP to the predicate NP in the sentence. At this point we can propose a genitive rule which generate /*śuRukkee puḷi*/ from the relative clause structure. When the transformation is performed the relative participle form of the 'be' verb is deleted and the genitive case suffix is substituted for the dative case. More examples may be drawn to illustrate this process.

- (45) *kuḷattuum kara uṇṭu*
pond-to bank is
(The pond has a bank)
→ *kuḷattuunṇuḷḷa kara*
pond-to-having-which bank
(The bank which the pond has)
→ *kuḷattina kara*
pond-of bank
(The bank of the pond)
- (46) *marattuum ila(y)uṇṭu*
tree-to leaf-is
(The tree has leaves.)
→ *marattuunṇuḷḷa ila*
tree-to-having with leaf
(The leaves which the tree has)
→ *marattina ila*
tree-of leaves
(The leaves of the tree)

- (47) paalum biḷuppuṇṭu
milk-to whiteness-is
(The milk has whiteness.)
→ paaluṇṇiḷḷa biḷuppu
milk-to-having which whiteness
(The whiteness which the milk has)
→ paalina biḷuppu
milk-of whiteness
(The whiteness of milk)
- (48) meesakku kaalu uṇṭu
chair-to leg is
(The chair has legs)
→ meesakkuḷḷa kaalu
chair-to-having-which leg
(The legs which the chair has)
→ meesee kaalu
chair-of leg
(The legs of the chair)
- (49) beelikku poṇṭaṇṇu-uṇṭu
fence-to height-is
(The fence has height)
→ beelikkuḷḷa poṇṭam
fence-to-having-which height
(The height which the fence has)
→ beeli(y)a poṇṭam
fence-of height
(The height of the fence)

The instrumental case construction is expressed by /koṇṭu/ in Laccadive Malayalam.¹⁴ So NPs-instrumental are to be distinguished in sentences like (29) and (30). The relative clause transformations can be applied to structures underlying such sentences too. Thus,

- (50) oom enna baṭi koṇṭu aṭiccu
he me-Acc. stick with beat
(He beat me with a stick.)
→ oom enna aṭicca baṭi
he me-Acc. beat-which stick
(The stick with which he beat me)
- (51) oom katti koṇṭu beṭṭaṇṭa
he knife-with cut-is
(He cuts with knife)

- oom beṭṭaṇṭa katti
 he cuts-which knife
 (The knife with which he cuts)

Sentences (51) and (53) can be said to be instances of the deletion of ablative case suffix in the predicate phrase of the constituent sentences during relativization.¹⁵ The relative clause may be shown to be derived as follows :

- (52) baliya maṭṭa kooḷiṇṭu kiṭṭaṇṭa
 → baliya maṭṭa kiṭṭaṇṭa kooḷi
 (53) empaaṭum oyyasukaarammaa diibiṇṭu bayaṇṭa
 → empaaṭum oyyaasukaarammaa bayaṇṭa diibam

Extending these observations to sentence (33) we can show that the locative suffix gets deleted and the constituent sentence is eventually relativized during the generation of (33) from its underlying representation.¹⁶ (33) may be represented roughly as (54) in the underlying level.

- (54) atu-naam śeeri (y)-i (1) baḷannu-śeeri-aaṇṭeem
 → atu naam baḷanna śeeri...

Generally, in Malayalam vocative suffixes are treated under case declensions. It is not intended here either to contradict or to support such an analysis. But interestingly enough, the presence of an vocative in sentences denotes relativization in an imperative construction. Consider sentence (55),

- (55) kulussee baa
 Kuluss-Voc come
 (Kuluss, come (here).)

It is assumed in (55) that the NP-vocative in the Subject position would simply indicate the presence of a sub-joined imperative sentence in the deep structure. A constituent sentence which become a relative clause is embedded in it. Compare the sentences below:

- (56) kulussee niim baa
 Kuluss-Voc. you come
 (Kuluss, you come (here).)
 (57) kulussee naam ippa pookaṇṭa
 Kuluss-Voc. I now is-going
 (Kuluss, I am going now.)

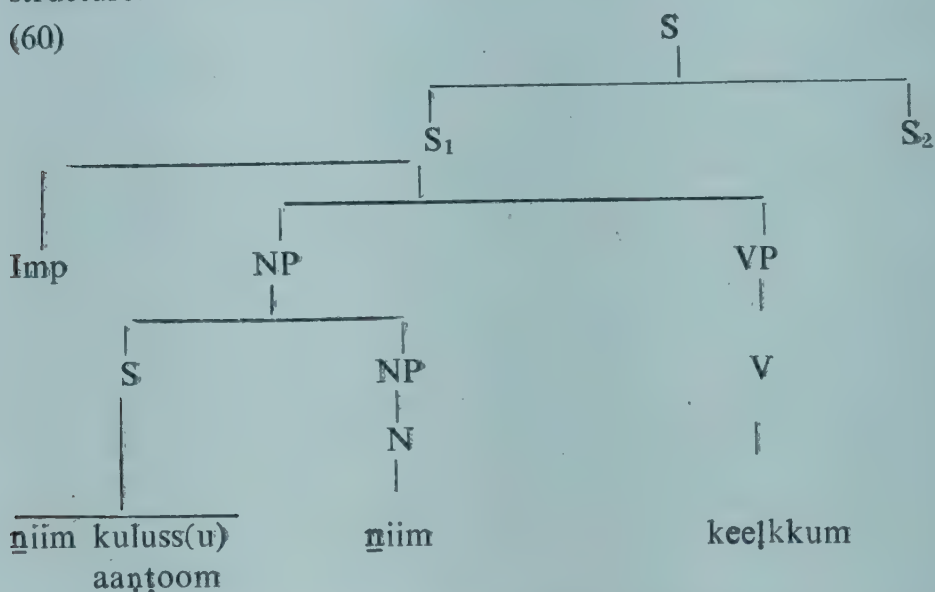
Since the vocative form can precede an imperative or statement sentence it is indicative of the speaker addressing the hearer (ensured as II person in imperative sentences). Hence the imperative sentence,

- (58) niim baa
you come
(You come (here.))

and the statement sentence,

- (59) naam ippa pookaṇṭa
I now is-going
(I am going now.)

are to be conjoined with an imperative sentence structure (i.e. (60) below) which eventually occupies the subject position in the surface structure.



The constituent sentence present under the NP in the deep structure does not involve an NP-vocative, but only a predicate nominal /kulussu/. As in the other examples the process of deletion of case suffix is irrelevant here. One has to admit that the vocative suffix is also a later addition. It has been shown that the genitive case suffix is also a latter addition during the derivation of possessive constructions by a transformation with clearly denotes a case relation in the surface structure. But what about the vocative suffix in (56)? Does it reflect any case relation at all? It appears that vocative suffix in (56) - (57) is not significant enough to warrant calling it a different case, then the nominative form is sufficient to indicate the significant case relation,

Verbal forms like /bannatu/ or /bannee/ 'that which came', /kaṇṭatu/ or /kaṇṭee/ 'that which saw' etc. can be analysed as participial nouns. But in sentences like,

- (61) ooḷ paaṭiyatu baraabaRu nallataaṇṇa
she singing very good-was
(Her singing was very good.)

the (a)-tu form simply indicates that the entire preceding sentence is being used as a noun. The participles usually function as adjectival forms. In (61) /paat̤iyatu/ simply denotes nominalization. Now let us examine a sentence :

- (62) naam iliyatta kon̩na
 I rat-Acc killed
 (I killed a rat.)

This is a simple verb final sentence with an object noun phrase which takes an accusative case suffix since the verb /kon̩na/ is transitive. Besides, since the word order in (62) need not be kept rigid, generally the following order types do not cause a change in the meaning of (62)

- (63) iliyatta naam kon̩na
 rat Acc. I killed
 (I killed a rat.)
- (64) (?) kon̩na iliyatta naam (least frequent)
 killed rat-Acc. I
 (To mean : I killed a rat.)

This observation could also indicate that generally the change in order need not be said as imparting any semantic focus on any of the constituents in (63) and (64). But extraposition of a certain verb or phrase in sentences like (62) can indicate further possibilities.

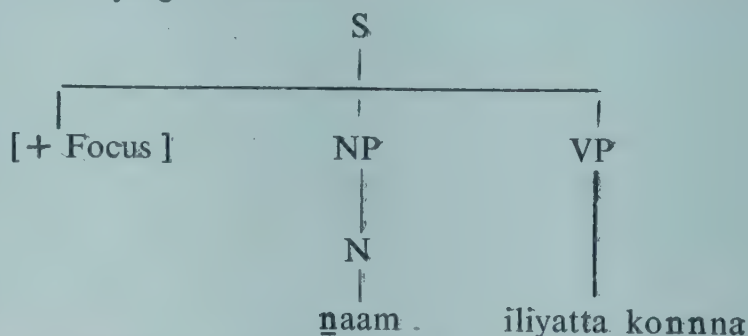
- (65) naam kon̩natu iliyaññ-aan̩toom
 I killed it rat is
 (It is the rat that I killed.)
- (66) naam kon̩natu aan̩toom iliyam
 I killed-it is rat
 (What I killed is the rat)
- (67) naam aan̩toom iliyatta kon̩natu
 I is rat. Acc. killed it
 (It is I who killed the rat)

One should not fail to observe that basically the meaning of (62) is conveyed by all these sentences. If so, are these sentences to be considered synonymous to (62)? We cannot establish that they are perfect synonyms because in (65) - (67) in addition to the meaning of (62) the extraposition possibilities add some degree of semantic focus to the word or phrase which is singled out by the process (Lindholm 1971). In (65) the object is clefted (with reference to (62) and it receives a semantic feature [+ Focus]. The object is being affirmed in (65). In (66) also the same process takes place and hence

there is no question of a nuance. But (67) maps the focus on to the subject and hence the subject noun phrase is being clefted. (67) is particularly interesting since the 'be' form /aanṭoom/ which immediately follows the Subject provides the specified focussing of the preceding element in the sentence. There is an immediate justification for calling the type of process discussed above as clefting.¹⁷ But the placement of [+Focus] in such sentences will show certain nuance in the underlying abstract meaning.¹⁸ This point can well be taken care of by treating [+Focus] as an abstract semantic element in the deep structure. The cleft sentence transformation would map the feature [+Focus] on to the appropriate constituent effecting the extraposition of the constituents in the sentence¹⁹ and makes the subject of the transformed sentence a nominalized sentence by the addition of a nominalizing suffix as in (65), (66) etc.

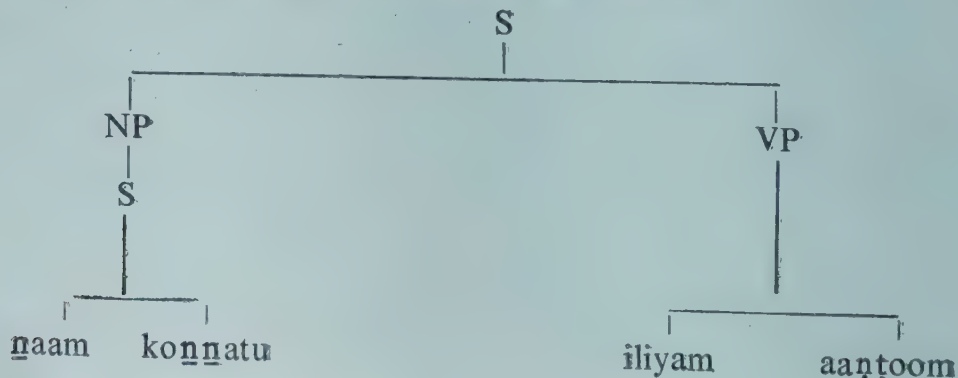
In (62) there is no focusing for any of the constituents involved. If sentences (66) - (67) have a [+Focus] specification in their underlying structures, to that very extent they differ from the underlying representation of (62) in which there is little need for such a specification.²⁰ Sentences (65) - (67) can be thought of as derived from (roughly) an underlying structure.

(68)



(62) also may be derived without specifying [+Focus] in this underlying structure. Positing [+Focus] the manifestation of the process of focussing (or 'emphasising'-using it somewhat loosely) is defined and represented in the deep structure. The mapping of the semantic feature is carried out by the application of the cleft sentence transformation. This treatment would bring to light the inner relationship between sentences (62) and (65) - (67) and their possible nuances. The structure derived from (68) is represented as follows:

(69)

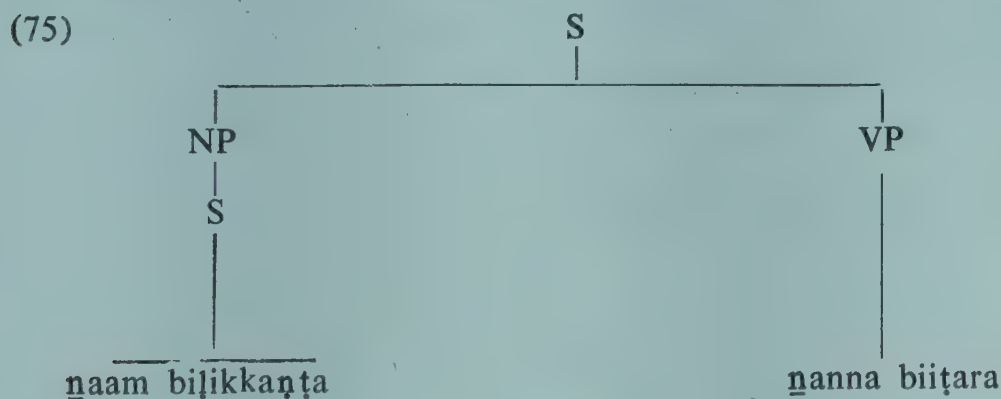


The structure would show that apart from the singling out of certain constituents by focussing, the whole process is something similar to nominalization.

The analysis presented above would explain the following sentences too.

- (70) naam enna biitara bilikkaṇṭa
I me-of wife-Acc. calling
(I am calling my wife.)
- (71) naam bilikkaṇṭee enna biitara
I calling-which-that me-of wife-Acc.
(The one I call is my wife)
- (72) *naam bilikkaṇṭee enna biitar
- (73) *naam bilikkaṇṭool enna biitara
- (74) naam bilikkaṇṭool enna biitar
I calling-which-who me-of wife
(The one whom I call is my wife)

The analysis already presented would essentially indicate that /*(a)-tu/* does not stand for the predicate nominal /*biitar/* in the above sentences and that no instance of identical NP deletion is involved at any stage in the derivation of these sentences. /*(a)-tu/* added to the verb in the sentence indicates an event and hence (71) is derived from a simple verb final structure, which underlies (70), with a specification for [+ Focus]. The surface structure of (71) is represented as follows :



At least in the case of sentences with transitive verbs, this analysis of deriving cleft sentences from a simple verb final structure may be seriously challenged.²¹ Can we derive all these cleft sentences from different deep structures, say relative clause structures? Though this would present a number of complexities, it is worth examining as an alternative to the present analysis. Once again, let us assume that sentence (66) is derived from a relative clauses structure with /*atu/* as the matrix NP.

- (76) naam Δ -a konnnu - Δ iliyam aan ϕ oom
 →atu →atu
 → naam konnnatu..... → iliyatta
 → iliyam
 (Δ is pronominalized as /atu/)

The accusative case suffix in the Object noun phrase in the constituent sentence is not deleted during relativization but is alternately incorporated with the predicate nominal, which is realised as equivalent to the matrix NP which is identical the NP-acc. in the constituent sentence. In the above structure the accusative case suffix which is said to be incorporated into the predicate nominal is finally deleted since *iliyam* is not specified for gender. We have seen that in sentence (72) the deletion of the accusative case suffix results in ungrammaticality since the predicate nominal is marked for [- male].

At the first instance, this projects a semantic problem. In the deep structure represented above, coreferential constituent NPs under the matrix NP are shown as Δ which may roughly indicate 'something' or 'somebody'. It can be argued that this would create problems of presupposition. There is always the presupposition of an abstract thing, the features of which are not evident but are to be specific and are specified only when it is realised as the predicate nominal. It seems that the presupposition works backwards here. Since the NP which is directly dominated by the matrix NP (and hence the relativized NP) is not specified for gender (i. e. either as [+ male] or [-male]) its representation by the third person neuter pronoun /atu/ is justified. There are sentences with the neuter singular pronoun as the Subject, as in the following instances.

- (77) atu umma aaṇṭoom
that mother is
(That is (my) mother)
- (78) ool umma aaṇṭoom
she mother is
(She is (someone's) mother)
- (79) oom koojaññ-aaṇṭoom
he Kojan is
(He is Kojan.)
- (80) atu koojaññ-aaṇṭoom
that Kojan is
(That is Kojan.)

In (77) and (80) *atu* merely denotes 'somebody' who is not specified as either [+ male] or [- male] (viz. not identified earlier).

Furthermore if (78) is said by a son about his mother, it is highly impolite and hence only the third person neuter pronoun(pl.) can be used. In (77) and (80) /atu/ demonstrates a certain individual. Now see the following sentences :

- (81) aa aa! ummaa aaṇṭoom
[- male]
that person(she) mother is
(That person (she) is (my) mother)

- (82) aa aa! koojaṇṇ-aaṇṭoom
[+ male]
that person(he) Kojan is
(That person(he) is Kojan)

In (77) and (81) /aa aa!/ can very well be substituted by /atu/. It is both demonstrative and neuter singular in function.

It is relevant to note that in (65) /atu/ as the antecedent does not cause any problem since the predicate nominal is /iliyam/ which is [+ animate] [— human]. But in instances like (70) and (71) /atu/ should be taken as receiving features [+ animate] [+human]. Whether or not the following sentences can be differentiated on factors other than sociocultural or non-linguistic is not known at present.

Now consider the following sentences:

- (83) atu koojaṇṇ-aaṇṭoom
that Kojan is
(That is Kojan)
- (84) oom koojaṇṇ-aaṇṭoom
he Kojan is
(he is Kojan.)
- (85) atu iliyaṇṇ-aaṇṭoom
that rat is
(That is a rat)
- (86) atu baara aaṇṭoom
that coral is
(That is coral.)

In sentences (83) and (84) it can be said that the speaker is using /atu/ to identify somebody who is not specified for gender. But since the person is identified as /koojam/ who is [+ male], /oom/ would be more appropriate as in (84). In (85) and (86) irrespective of the difference between /iliyam/ [+ animate] and /baara/ [— animate] both are represented by /atu/. In short, as far as a

native speaker is concerned /oom/ and /atu/ as /kojam/ in (84) and (83) respectively and /atu/ as /iliyam/ and /baara/ in (85) respectively are quite natural in the sense that his intuition correctly tells him the significant features that are mapped onto /atu/ when it is used in sentences where it is equated with an NP having different feature specifications. As seen in (81) and (82), (83) - (86) are paraphrased as

- (87) aa aaḷ koojaṇṇ aaṇṭoom
→ atu (not specified [— male] or [+ male])
- (88) aa aaḷ koojaṇṇ-aaṇṭoom
→ oom (specified as [+ male])
- (89) aa jīvi iliyaṇṇ-aaṇṭoom
that animal rat is
(That animal is a rat.)
→ atu (specified as [+ animate] and [— human])
- (90) aa saadanam baara aaṇṭoom
that thing coral is
(That thing is coral.)
→ atu (specified as [— animate])

It is evident that /atu/ can indicate either [+ animate] or [— animate] NPs. Unlike /atu/, /-an/ in standard Malayalam can indicate only [+ mas + sg.] or [+ location + possession] in constructions.²²

An alternative analysis of the cleft sentence types based on transitive sentences was presentsd above. This may be extended to intransitive sentences where a number of seeming complexities may arise. Let us start with a sentence (91).

- (91) baappa inṇala baṇṇna
father yesterday came
(Father came yesterday)

If we are to consider the first analysis as more plausible, the underlying relationship of (91) to sentences (92) - (95) can be established satisfactorily. (See discussion on sentences (65) - (67)).

- (92) inṇala baṇṇatu baappaa (y) aaṇṭoom
yesterday came-which that - father he-is
(The one who came yesterday is (my) father.)
- (93) baappaa (y) aaṇṭoom inṇala baṇṇatu
father is yesterday came-which that
(It is (my) father who came yesterday.)

- (94) baappaa bannatu innala (y)aan̄toom
father came-which-that yesterday is
(It was yesterday that (my) father came.)
- (95) innala (y) aan̄toom baappa bannatu
yesterday is father came-which-that
(It was (only) yesterday that (my) father came)

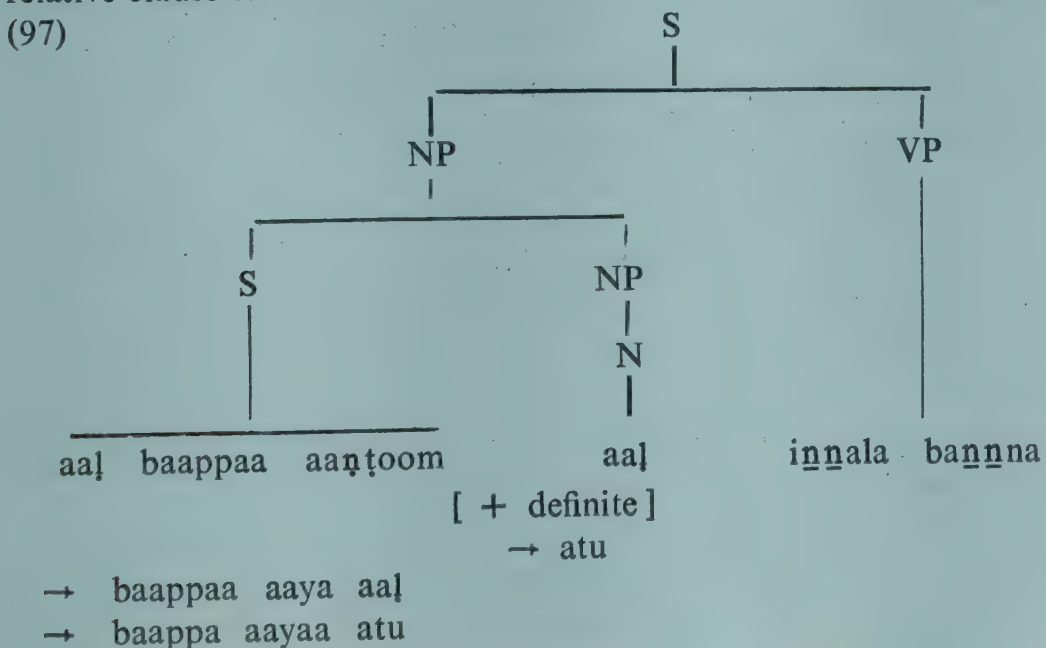
(91) can be said to be related to (92) - (95) in terms of cleft sentence process by accounting properly the semantic nuances observed in the derived sentences.²³ But an alternative analysis which suggests that constructions with / (a) tu / are related to an underlying relative clause structure would immediately provide us with deviant derivations for sentences (91), (92), (93) and (95). In this case the relatedness in the semantic content of these sentences cannot be captured by deriving them from a single underlying structure by the application of transformational rules.²⁴

The treatment of sentences (92) - (95) as derived from underlying relative clause structures must indicate that /atu/ in /bannatu/ in (92) and (93) stands, in the surface, for the antecedent under the matrix NP which is not specified for gender, and is equated with /baappa/ which is the predicate NP in the sentences.

- (96) Δ innale bannna - Δ baappaa aan̄toom
→ atu → atu
→ \emptyset

(93) may be derived from this base by assigning the semantic focus mapped on to the predicate nominal in the sentence. This becomes possible by defining and representing it in the underlying structure itself.²⁵

But, if we consider that noun phrases are introduced by relative clauses (Bach 1968) the relationship of (91) to (92) and (93) can be established. Thus (91) may be shown as derived from an underlying relative clause structure.



Once again (92) and (93) are to be explained in terms of placement of focus on *baappa*. (94) and (95) are also derived from underlying relative clause structures and they are to be differentiated from the other sentences because *atu* is equated with *innala* in both these sentences. In (97) the *aal* is pronominalised as *atu*. Thus the derivation is as follows :

(98) → *atu baappa aanṭoom-atu innala banṇa*

(99) → *baappaa aaya atu innala banṇa*

(100) = (91) → *haappaa innala banṇa*

Other possibilities are

(101) *innala banṇa baappaa aaya atu*

(102) *innala banṇa atu baappaa*

(103) *baappaa innala banṇa atu* (with *aanṭoom* in specified positions)

(98) and (99) are to be viewed as intermediate structures. The singling out of a certain constituent and the nuances resulting from the same (if at all there is any) may be accounted for in terms of the placement of [+ Focus].

When this analysis is extended to sentences (94) and (95) we have to specify that the antecedent represented by *atu* in the surface structure (as per analysis) is equated with *innala* which is generally treated as a temporal clitic.²⁶ Forms like this will be taken up for further discussion below :

The analysis would now seem to jump into certain semantic pit falls. To preserve the relative clause treatment of sentences (94) and (95), *atu* has to be treated as the antecedent under the matrix NP. Then, to which NP in the constituent sentence (which eventually becomes a relative clause) is it identical? As in the other instances, this identity can be specified in the deep structure.

(104) *baappa Δ banṇa Δ innala aanṭoom*
→ ∅ → *atu*

The identical NP deletion works well in (104). The abstract NP (Δ) is represented by the third person pronoun. But our earlier exposition of the alternative incorporation of case suffixes may demand a logical equivalent of the Subject (identical to an NP in the constituent sentence which eventually gets deleted during relativization) and the predicate nominal, since the sentence is a copular type. All these would indicate that (104) is essentially the type of (105).

(105) *baappa divasam banṇa divasam innala aanṭoom*
[-definite] [+definite]
father day came-which day yesterday is

From (105) it is to be deduced that /divasam/ is identified as /innala/. This may compel us to assign a nominal status to /innala/ since it simply presupposes /divasam/ which is an NP.²⁷ This observation can be extended to constructions of the form.

- (106) baappaa baṇṇatu $\left\{ \begin{array}{l} iṇṇana \\ aṇṇana \\ eṇṇana \end{array} \right\}$ aaṇṭoom
[+ manner]

father came-which-that $\left\{ \begin{array}{l} \text{this manner} \\ \text{that manner} \\ \text{what manner} \end{array} \right\}$ is

(In $\left\{ \begin{array}{l} \text{this} \\ \text{that} \\ \text{what} \end{array} \right\}$ manner father came)

- (107) baappaa baṇṇatu iṇṇooṭṭu aaṇṭoom
[+ direction]

father came-which-that here-to is
(Father came here (direction).)

- (108) baappaa baṇṇatu beRute aaṇṭoom²⁸
father came-which-that simply is
(Father came without any intention.)

The most significant difference between the two analyses presented here is in the assigning of an underlying structure to the set of sentences discussed above i. e. (65) - (67), (73) - (74) and (91) - (95). The former analysis would envisage the simple verb-final sentence as the deep structure as exemplified in (68). The extra-positional possibilities as observed in (65), (66), (67) etc. are explained by a cleft sentence transformation rule and the nuances are accounted for by positing an abstract semantic element [+ Focus] in the deep structure. This would keep the cleft sentence transformation as a meaning preserving process. The application of such a rule will generate surface structures. One of these resembles a nominalized structure. This is represented in (75). Moreover, this fact would show that the /(a)tu/ form added to the final verb does not have the pronominal function. It functions as a nominalizing suffix only. The nominalized sentence, is then brought under the domination of the Subject NP.

In the latter analysis the deep structure is not conceived as a simple verb final one. All the sentences, including the simple verb final sentence types, are treated as derived from underlying relative clause constructions. Here too, the nuances in the sentences derived by the cleft sentence transformation has to be accounted for by

representing and defining it in the underlying structure as done in the former analysis. Here a deep structure difference is indicated for sentences (91) and (94)-(95) while the treatment of /atu/ as a nominalising suffix in such sentences is rejected. Although this alternative analysis seems complex, it provides further insight into the function of /atu/ and some of the units which are generally treated as clitics in a number of grammatical descriptions. It may be true that the former analysis seems rather simple and explains a number of facts. Besides, it can capture the semantic relatedness of sentences (63) - (71) and (91) - (95). However, all these may not diminish the validity of the second alternative seriously. Both are, thus, genuine alternatives which require further investigation.

FOOTNOTES

1. The discussion is mainly on the basis of the Laccadive dialect of Malayalam.
2. It is observed that the restrictive relative clauses are more frequent in ordinary speech.
3. Unlike in English the antecedent occurs after the coreferential element in Malayalam.
4. In English, this is exactly the case. See, Huddleston, 1971; Langendoen, 1969, 1970.
5. In his paper *Nouns and noun phrases* (pp. 94f.) Bach illustrates this with a sentence: 'I dreamt that Rebecca, who is a friend of mine from college, was on the phone'. He says, given proper conditions that such sentences can be ambiguous (for instance, if we change 'is' to 'was' in the example above).
6. In (15) /nanna/ can also attribute /aantroottu/ in which case /nannaa aantroottu/ would mean 'my Androth Island'.
7. This ambiguity will not arise if the context of the sentence is specified. This is an illustration of the point on competence that 'the tacit knowledge may very well not be immediately available to the user of the language' (Chomsky 1965, p. 21)
8. cf. sentence (8). It is admitted that interpretation of (17) as one involving a non-restrictive relative clause would seem to be slightly artificial. But only such a possibility is plausible here. At least instances such as (8) and (16) suggest that proper nouns do take relative clauses.

9. In Laccadive Malayalam Direct Object nouns which are[+ animate] take an accusative case suffix if the finite verb in the sentence is transitive. Accusative case suffix is deleted if the Object noun is [- animate]. In standard Malayalam Direct Objects, even if they are marked for [- animate] will take an accusative case suffix when they precede verbs like /parihariccu/ 'solved': /pa^liccu/ 'denigrate': /ⁿamaskariccu/ 'saluted'; /ⁿiⁿdiccu/ 'ridiculed'; /etirttu/ 'opposed' etc.
10. The accusative case is manifested by two suffixes, /-ee/ after 'a' ending stems E. g. /umm(a)-ee/ 'mother-Acc' and /-a/ in all other positions e. g. /śuRaavin-a/ 'shark-Acc.' in sentences.
11. Sociative case is manifested by /-ooṭu/ after -tt- and -ka! E. g. /deēṣattoṭu/ 'with the land'; /saṇṇatikaḷooṭu/, 'with the matter's' /-aṭa/ after /n/ or /l/ ending stems E. g. /koojanaṭa/ 'with Kojan' and /-eeṭu/ which freely varies with /-eeṭa/ in other instances. E. g. /um-eeṭu/a/ 'with mother'.
12. Dative case is marked by suffixes /-kku/ after vowel and /y/ ending noun stems. E. g. /biikkku/ 'to the wife'; /baykkku/ 'to the arm'; /akku/ in free variation with /ukku/ after noun stems which end in -CC (except /tt/ and /nn/) and also after gender plural markers. E. g. /ⁿam-akku/-ukku/ 'to us' and /-uum/ in other instances E. g. /aḷiyan-uum/ 'to the brother-in-law'.
13. A noun is declined for genitive case by adding any one of the two suffixes /-ee/ or /-a/ of which the former occurs only with /-a/ ending stems and the latter with all other stems. See instance like /aamm(a) ee/ 'of mother'; /beeliya/ 'of the fence' etc.
14. This is also the case in Standard Malayalam. But in a few instances the original instrumental case suffix /-aal/ is used. E. g. /vaakkaal paRaṇṇu/ 'said by word': /piṭicca piṭiyaale koṇṭu vaⁿṇu/ 'brought directly by catching' etc. (The nuance indicated by the suffix is overlooked here). Accusative -e + koṇṭu roughly denotes a sense conveyed by 'by' or 'for' in English. E.g. /enne koṇṭu/ 'by for me'. 'koṇṭu' is undoubtedly a verb which means 'to receive'. It can be argued that /koṇṭu/ seems to convey the meaning of instrumental case on the deletion of the instrumental case suffix itself. For instance the sentence

avan vaṭi koṇṭu aṭiccu
 he strike having received beat
 (He beat with a stick)

can be related to

avan vaṭiyaal aṭiccu
he stick-with beat
(He beat with a stick)

Both these can be derived from an underlying form

avan vaṭikoṇṭu vaṭiyaal aṭiccu
he stick having received stick-with beat
(He got stick and beat with the stick)

Deletion of /koṇṭu/ or /vaṭiyaal/ in (38) would derive (36) or (37) respectively.

15. Either /-eenṭu/ after /t/ ending noun stems where it freely varies with /-eenṇu/ E. g. aviṭeenṭ /-eenṇu/ 'from there' or /-iinṭu/ elsewhere. E. g. /ayin-iinṭu/ 'from it' denote the ablative case. In Standard Malayalam, a number of descriptive grammars do not distinguish ablative case. (Panikkar 1979,). The ablative case relation is manifested by a construction: case base + il + ninṇu.

E. g. kaatṭil ninṇu 'from the forest'
talayil ninṇu 'from the head' etc.

/ninṇu/ which literally means 'having' stood' is not used as a finite verb here. (The final /u/ is unrounded which is specific of the verbal participles. But in Laccadive Malayalam /-iintu/ is treated as ablative case suffix itself. A possible derivation of /iinṇu/ or /iinṭu/ is il + ninRu > il + ninṇu > iinṇu (in dialects of the mainland), il + ninRu > il + ninṭu (Laccadive dialect) Both, present instances of fusion of two elements which is overlooked here for convenience. The present analysis is more appreciative of the semantic relations reflected by the form rather than its history of evolution.

16. Locative case suffixes are distinguished under two groups. Suffixes of the form -V(V) (I/I) constitute the first group (Locative I). The second group (Locative 2) consists of two suffixes /φ/ and /-att/; /-eel/ in between /a/ ending stems and locative clitic /e/ which freely varies with /a/ E. g. /koṭṭa-eeḷa /e/ 'in the basket'; /-ee/ after /a/ (except the above and /r/ ending stems E. g. /śiratta (-ee)/ 'in the shell of the coconut'. /-t-/ in between stems other than those which end in /a/ and the locative clitic /e/ which freely varies with /a/. E. g. /kaṭuñṇootta /e/ 'in Kudungoth island'; /-i/ after /i/ ending stems. E. g. /beelii/ 'in the fence' and /il/ elsewhere and also often in free variation with /i/. After /tṭ/ ending stems /-il/ freely varies with /φ/. E. g. /innaaṭṭi/i/φ/ 'in this land'. After C ending stems other than /r/, i/φ is preeminently used although /-il/ is also observed to be

possible to occur with such stems. Locative 2, /Ø/ after /tt/ in /am/ ending nouns E. g. /kaalattu Ø/ 'in the period'; /-att-/ in other positions.

E. g. /naakkattu/ 'in the tongue'.

17. The cleft sentence transformation and related issues in English are amply described in Jacobs and Rosenbaum 1968, Huddleston 1971.
18. Here however it is not exactly specified as to how far the deep structure is abstract or is to be abstract.
19. Object NP [+ Focus] after the verb (65), (66) and subject NP [+ Focus] before the 'be' form /aanu/ (67).
20. Nothing would prevent us from positing a common deep structure for sentences (62), (65) - (67). This is justifiable since greater abstractness can be had in the underlying representation. Evidently, this would force one to reconsider the notion that transformations are meaning preserving.
21. Sentences with intransitive verbs will be taken up later.
22. /-an/ is the masculine singular suffix in standard Malayalam. However in certain instances /-an/ has only a neuter meaning and in certain other instances it denotes a sense of location. Thus there are two main types of /-an/ forms in standard Malayalam based on their derivation.
 1. /-an/ which is mas. sg.
 2. /-an/ which denotes location.

As far as (1) is concerned there are two sub-divisions.

1. a) /-an/ which has only a mas. sg. function

E.g. /kaḷḷan/ 'thief'

- b) /-an/ which may denote a neuter sg. (and pl. (?)) also

E.g. /uukkan/ 'powerful'

Only very few instances can be drawn to illustrate (1) (b). Where /-an/ occurs with certain verbal noun and Sanskrit forms. (2) includes forms like /tekkan kaaRRu /, /vayanaatan peṇṇu/. They can be derived as

*tekkinilai kaaRRu > tekkin kaaRRu > tekkan kaaRRu

'south-in (of) wind (south wind)'

*vayanaaṭṭilai peṇṇu > vayanaaṭṭin peṇṇu > vayanaatan peṇṇu

'Wynad in (of) girl (girl of Wynad)'

Forms of (1) (a) can be declined for feminine while for others it may create ungrammaticality. See the following :

*uukki peṇṇu

'powerful girl' (1) (b)

*vayanaaṭṭi peṇṇu

'girl of Wynad' (2)

1. a) can denote only gender number while (1) (b) denotes possession. Strictly speaking (2) has a sense of location and also possession since /vayanaatan peṇṇu/ can be either as /vayanaaṭṭile peṇṇu/ 'Wynad in girl' and /vayanaaṭṭinRe peṇṇu/ 'Wynad of girl' both to mean 'girl of Wynad'.
23. The semantic nuances are to be defined and represented in the deep structure while preserving their abstract nature.
24. The grouping of (92) with (93) and (94) with (95) as more related or as identical in meaning, may be objected because it is observed that the change in order of elements can cause nuances.
25. The [+ Focus] is being mapped on to /baappa/ in (93) by bringing the 'be' form immediately after it.
26. In a number of descriptive grammars, clitics are defined as those units which do not fall under verbs, defective verbs, appellatives and nouns. Panikkar (1973). /inṇala/ 'yesterday', /inṇu/ 'today', /ṇaala/ 'tomorrow' etc. are generally treated as clitics functioning as verb attributives.
27. Generally phrases involving temporals with /a-/, /i-/, /e / etc. do not have the function of a pure noun, morphologically. But syntactically they behave like nouns. However in Modern Malayalam there are instances of these behaving like nouns in the morphological level. E.g. /inṇal-att-a/ 'of yesterday' /aṇṇ-att-a/ 'of that day', /inṇ-att-a/ 'of today' etc. (*in-tala > inṇala).
28. The occurrence of /beRute/ indicates that it belongs to the appellative category in certain descriptions (Panikkar 1973). /beRute/ is then, just like /koṭum/, /iḷam/ etc. which are appellatives and hence satisfy the adjectival function. Since /beRute/ is a conjugated noun the present treatment holds good.

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GENDER AND NUMBER IN PROTO-DRAVIDIAN*

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§ 0. A language has grammatical gender if the nominal stems of that language are classifiable in their morphology/syntax partly on the basis of binary semantic oppositions like animate : inanimate, human : non-human, male : female (with animate and/or human categories), etc. At least it is noticed that in languages with grammatical gender stems denoting male-human always belong to the masculine gender. Languages differ in their degree of grammatico-semantic correlation in the classification of nominal and pronominal stems.

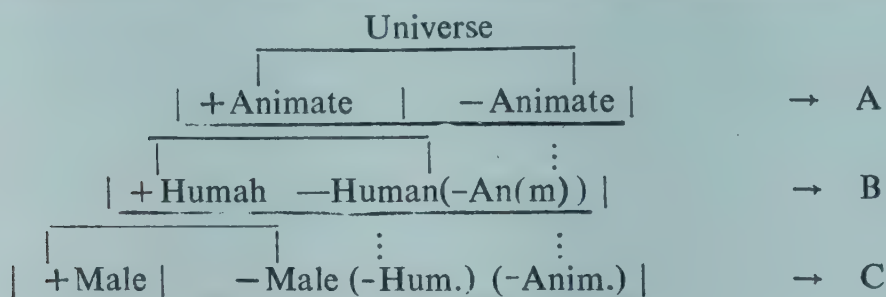


Chart 1

[A = + Animate vs. -Animate; B = +Human vs. -Human Animate and -Animate; C = +Human Male vs. -Male Hum. (i. e. female), -Human Animate and -Animate]¹

In terms of the above tree model, we may say that gender systems have their genesis in the left branching of the universe in the process of naming; languages which are right-branching with [-Animate] as the primary basis of classification possess classifier systems rather than gender (Krishnamurti, 1967).

§ 1. Dravidian languages have grammatical gender with a very high degree of correlation between the semantic and syntactic behaviour of nominal stems.

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3rd person pronouns

| | 1 | 2 | 3 | 4 | 5 | 6 |
|--|----------------|-----------------|------------------------|---------------------------|--------------------------|--------------------------|
| semantic and formal contrasts Language | 'he' (hum.) | 'she' (hum.) | 'it' (non- hum.) | 'they' (hum.- male) | 'they' (hum. fem.) | 'they' (non- hum.) |
| <i>Proto-</i> | <i>*awantu</i> | <i>*awaɭ</i> | <i>*atu</i> | <i>*awar</i> | | <i>*away</i> |
| 1. Ta. | avan̩ | avaɭ | atu | avar | | avai |
| (Kāṇ.) | avē | ava | adu | avru | | adu |
| (Eruk.) | | | atu | | | ay |
| 2. Ma. | avan | avaɭ | atu | avar | | avai |
| 3. To. | | | aθ | | | aθa:m |
| 4. Irula | avɛ | ava | adu | avru | | ave |
| 5. Ko. | avn | avɭ | ad | avr | | ad |

| | | | | | |
|-------------------|----------------|-------|------|--------|--------|
| 6. Koḍ | avēn | ava | adi | aynga | adi |
| 7. Ka. | avaM/ avanu | ava! | adu | avaru | avu |
| (Gow. S. Hav } | āvā | | adi | | avu |
| (Hal.) | avēnu | avēlu | adu | averu | |
| 8. Tu. | āye | āḷi | avu | a:kuḷu | eikuḷu |
| | | | | ār | avu |
| 9. Te. | wāḍu | | adi | wāru | avi |
| 10. Go. | ōr | | ad | ōṛ/ōṛk | av |
| 11. Koya | ōṇḍ | | addu | ōr | avvu |
| 12. Kui | aanju | | āri | aaru | āvi |
| 13. Kuvi | āasi | | ādi | āari | āati |
| 14. Koṇḍa | vāṇru | | adi | wār | avi |

| 15. Pengo | avan | adel | adi | avar | avek | avan |
|-----------|--------|------|-----|-----------|------|------------------|
| 16. Pa. | ōd | | ad | ōr | | av |
| 17. Kol. | am/amd | | ad | avr | | adav |
| 18. Naik | avnd | | ad | avr | | adav/ |
| 19. Oll. | ōnd | | ad | ōr | | av |
| 20. Gad. | ōnd | | ad | ōr | | av |
| 21. Kur. | ās | | ād | ār/abr̥ar | | abr̥ā |
| 22. Malt. | āh | | āth | ār | | āth ³ |
| 23. Br. | | | ōd | | | ōfk |

| | Singular | | | Plural | | | |
|--------|----------|----------|----------|----------|----------|----------|-------------------------------------|
| I (a) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ta. Ma. Iruḷa, Ka. Tu. |
| (b) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>3</u> | Ta. (Kāṇ. dial.), Ko., Koḍ. |
| (c) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ka. (Gow., S. Hav.) |
| (d) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ka. (Ha.) |
| (e) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | To. Erukala, Br. |
| II (a) | <u>1</u> | <u>2</u> | <u>3</u> | 4 | <u>5</u> | <u>6</u> | Go., Koya., Kui, Kuvi, Konda; |
| (b) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Pa., Kol., Nk., Oll., Gad. Pengo |
| III. | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Te., Kur., Malt. |

Chart 3

§ 2. The following generalized types and sub-types of distribution can be set up from the above Chart (Contrasts in form are underlined).

Dravidian gender distinction appears in noun stems (basic or derived), 3rd personal (demonstrative) pronouns, finite verbs and nominal predicates. The demonstrative pronouns which can substitute for nouns can be taken as the best basis of gender distinction in Dravidian². Gender and number are inter-related categories in Dravidian and they have to be dealt with together as a single system.

There are six maximum semantic and formal contrasts represented in Dravidian gender. Only one Dravidian language, viz., Pengo has all the six differences. The following chart shows for each language the 3rd personal pronouns and their respective semantic ranges [data mainly drawn from Shanmugam 1971; 1-29, and DED (S)].

§ 3. The above charts (Charts 2 and 3) show that the formal contrasts range from two to six. Erukala (Ta. dialect) Toda and Brahui have only number but no gender. It is interesting to note that in all these it is the 'neuter' forms (Erukala *atu*, To. *aθ*, Brah. *ōd*) both in the singular and the plural that have extended their semantic ranges with the loss of 'human' pronouns. Thus, To *aθ* 'he, she, it': *aθām* 'they (men, women)'.

These developments have to be treated as independent typological changes in the respective languages which do not represent the dominant patterns. On the other hand, Pengo, unlike any of its near sisters, Kui, Kuvi and Koṇḍa, has all the six contrasts—*avan/avanj*—‘he’, *adel* ‘she’ *adi* ‘it’; *avar* ‘they (men)’, *avek* ‘they (women)’ *avañ* ‘they (non-human)’. Here the forms *adel* ‘she’ and *avek* ‘they (women)’ are innovations derived from *ad-* and *av-* by the addition of *-el* (> *ā!*) and *-ek* (Female pl. suffix). The female human nouns have a plural suffix *-k* as opposed *-ñ* added to non-human nouns, e.g. *garce-k* ‘girls’: *kōḍi-ñ* ‘cows’⁴. Finite verbs show only a five-way contrast in their pronominal agreement (sg. man: others; pl. men: women: others). Here the pronominal suffix *-at* agrees with both *adel* ‘she’ and *adi* ‘it’ pointing to the primacy of the *ad* form (Burrow and Bhattacharya 1970: 24-32, 63).

§ 4. Within South Dravidian we notice three other minor patterns (Formal contrasts are underlined.)

| Singular | | | Plural | | | | |
|----------|----------|----------|----------|----------|----------|----------|---------------------------------|
| (a) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>3</u> | Ta (dial. kāṇikkāra), Ko., Koḍ. |
| (b) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ka. (dial. Gowda, S. Havyaga) |
| (c) | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ka. (dial. Hālakki) |

The above are atypical of the South Dravidian literary languages. In (a) the singular non-human pronoun has replaced the plural, whereby the number distinction in the non-human category is neutralized. This reflects an analogical projection from the nominal system where the neuter plural suffix **ka!* is infrequently used in SDr. (Subrahmanyam 1969, §31). Sub-type (b) shows only a three-way contrast by eliminating female human in the singular and by dropping the human category in the plural (see §7 below). The semantic ranges of *adi* and *avu* are therefore extended respectively to mean ‘she, it’ and ‘they (men, women and others)’. Sub-type (c) is even more puzzling because the human noun *awru* is used for the non-human category also. In the process of category collapsing, we normally expect as well as find the non-human or neuter as the unmarked one which takes over the function of ‘human’ and not vice-versa. These dialect varieties show independent developments in the direction of simplifying the systems found in the standard varieties. Simplification has taken place in the typologically expected direction in all these languages except Halakki Ka. An extreme process of such simplification totally eliminating gender is noticed in Erukala, To. and Br.

§ 5. Elimination of the above exceptional cases leaves us with three dominant types of gender-number distinction in Dravidian as follows :

| Type | Singular | | | Plural | | | |
|------|----------|----------|----------|----------|----------|----------|---|
| I | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ta., Ma., Iruḷa, (St.) Ka., Tu. |
| II | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Go., Koya, Kui, Kuvi, Koṇḍa, Maṇḍa; Pa., Kol., Nk., Pe. Gad |
| III | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> | Ta.. Kur., Malto |

Type II is the most widely distributed. Type III is similar to Type II in the singular and Type I in the plural. Notice, in the plural, there are only two formal contrasts traceable to PDr. **awar* and **away*. The difference lies only in their meaning ranges : Types I and III **awar* 'they (men and women)' : **away* 'they (non-persons)'. Type II **awar* 'they (men)' : **away* 'they (others)'. In the singular also there is difference in the semantic range of **atu* between Type I, on the one hand, and Types II and III, on the other. Types II and III, **atu* 'she; it'; Types I 'it' (non-human animate and all inanimate), because there is a separate form **awaḷ* for 'she'.

§6. The question is which of these types represents the Proto-Dravidian system. Jules Bloch (1954 : 5-7) and Krishnamurti (1961, §4. 30) argued in favour of Type II as representing the proto situation since it is symmetrical and can constitute a logical starting point for the derivation of Types I and III. Emeneau hesitatingly (1955, §10. 17) and Subranmanyam with certainty, but basing the arguments on Emeneau's (1969, §6), thought that Type III represents the proto system, since it occurs in widely divergent languages like Kur., Malto and Telugu. Burrow and Bhattacharya (1953, §12) consider the SDr. system (Type I) with its three way distinction in the singular as representing the proto. In this paper, I advance arguments in favour of Type II being the retention of the Proto-Dravidian system and account for Types I and III as innovations.

§7. There were only two formal contrasts in the plural-which corresponded to two parallel contrasts in the singular in PDr. The creation of **awaḷ* in PSDr. is an innovation which therefore restricted the meaning **atu* to only the non-human group.⁵ All Dravidian languages have derivative stems denoting female human by the addition of the suffix *-āḷ*. This goes back to PDr. in view of **mak-aḷ* 'daughter' as opposed to **makanṭu* 'son' (DED(S) 3768).

Ta. *makaḷ*, Ma. *mōḷ*, Ko. *mōḷ*, Ka. *magaḷ*, Koḍ *mōva* (loss of ḷ),
 Tu. *magaḷu*; Go. *miyār*, *miyāli*, Koṇḍa *gālu/gāru*, Pe. *gār*,
 Maṇḍa *gār/-m-gār*, Pa. *māl*, Ga. *māl* 'daughter';
 § Brah. *malh* 'son'.

The extension of this derivational process to the demonstrative system would yield **awaḷ*, **iwaḷ*, and **yāwaḷ*. The lexical (derivational) distinction of the female human in the singular is noticed in all Dravidian languages with the addition of several derivative suffixes (Shanmugam 1971 : 115-23)⁶. If Burrow and Bhattacharya (B and B) were correct in assuming Type I in the singular as representing PDr. then we should say that the Te-Kui subgroup and Kur-Malto subgroup independently lost **awaḷ* and extended the semantic range of **atu* to include female human. B and B's point would have been proved if any language even fortuitously extended the meaning of **awanṭu* ('man') to include female human also, since the semantic gap created by the loss of **awaḷ* could be filled by extending the distribution of either **awanṭu* or **atu*. Since this had not happened it would be more plausible to posit an innovation in SDr. than posit a uniform innovation in three unrelated subgroups, Te.-Kui, Kol.-Pa, Kur.-Malt.⁷ Most scholars now agree that a binary contrast as **awanṭu* : **atu* in the singular represents PDr. and SDr. innovated **awaḷ* (Emeneau 1955 : § 10.17, Krishnamurti 1961 : § 4.30, Subrahmanyam 1969 : § 6.) The Kannada dialects-Gowda and Havyaka have only the derivatives of **awanṭu* and **atu* which could as well be relics of the pre-South-Dravidian pattern. We must, however, admit that **awaḷ* should be a common innovation in the major languages of SDr. and therefore goes back to the PSDr. stage.

§ 8. Once the ground is cleared of the singular category, the PDr. reconstructions stand as follows :

Singular

Plural

**awanṭu* 'he'. **atu* 'she, it' : **awar* '?', **away* '?'

Now the only question to be resolved is the distribution (meaning) of **awar* and **away* in PDr. The only argument cautiously advanced by Prof. Emeneau (supported by Subrahmanyam 1969 : §§6, 9 and endorsed by Shanmugam 1970 : 123) is that Type III represented by such unrelated languages as Te. and Kur-Malto should be a retention of the PDr. system. This is, of course, a sound general principle if it could be proved on other grounds that the concerned feature is definitely a retention and not a typologically (but not genetically) motivated innovation. By simply applying this as a rule of thumb, we would have to say that the system represented by Toda and Brahui,

for instance, is proto (i.e. only number distinction without gender), since they represent genetically remote subgroups. We have ruled out this possibility by saying that it is an independent innovation, typologically motivated (process of simplification) and not genetically shared. No clinching evidence has been shown to rule out a similar possibility in the case of defining the meaning of **awar* in Types I and III.

There are two possible interpretations, viz., (a) PDr had **awar* 'they (human)' and **away* 'they (non-human)' as found in Types I and III. In that case Kui-Pengo and Kol.-Parji subgroups innovated a distributional (i.e. meaning) shift which led to these forms being redefined as **awar* 'men' **away* 'all others' (women, animals, and inanimate).

(b) PDr. **awar* meant 'men' and **away* 'all others' as in Type II and the other languages (SDr., Te., Kur.-Malto) extended the meaning of **awar* 'they (men)' to 'they (men and women or human)' and restricted the meaning of **away* 'they (non-men)' to 'they (non-human)'. In terms of Hoenigswald's (19-0 : 27-47) diagrams, these alternatives can be presented as follows : (Roman numerals represent syntactic/semantic environments : I = the environment in which the reflex of **awar* occurring as subject of a sentence is interpreted as 'men'; II = 'men and women'; III = 'women'; IV = 'non-human').

Alternative (a)⁸ III : IV

| | |
|--------------|--------------|
| II | PDr. |
| I | |
| <i>*awar</i> | <i>*away</i> |
| I, II | |
| III | IV |

Kui-Pengo;
Kol.-Pa.

**awar* I, II
**away* III, IV

Alternative (b)

| | |
|--------------|--------------|
| IV | |
| III | |
| II | |
| I | PDr. |
| <i>*awar</i> | <i>*away</i> |
| I, II | III |
| | V |

SDr.,
Te., Kur.-Malt.

**awar* I, II, III
**away* IV

As a 'natural' semantic shift alternative (a) is much less motivated than alternative (b). It would be hard to conceive of contexts in which the meaning of **awar* 'human' would be split so as to align the female human with the non-human and inanimate categories. On the contrary linguistic contexts where reference has to be made to combined groups of men and women would be more normal which would lead to the semantic shift **awar* 'men' > **awar* 'men and women' > **awar* 'women'. It is, therefore, likely that Type II represented the proto situation and SDr., Te., and Kur.-Malto gradually expanded the distribution of **awar* to embrace all groups of human (mixed or exclusive, irrespective of sex) restricting **away* to non-human. This change is sociolinguistically and typologically motivated and is not a shared innovation.

§ 9. Subrahmanyam (loc. cit.) says that the 'Central Dravidian' languages other than Telugu (Kui-Pe., Kol.-Pa. subgroups) restricted the meaning of **awar* 'they (human)' to 'they (men)' and aligned female human with the neuter category on the analogy of the singular where we have **awan̩tu* 'man': **alu* 'other' (female human, non-human animate, and inanimate). When he agrees that in the singular man vs. others is primary, then why is it not primary also in the plural? This gives us a more symmetrical proto-system. There is no such universal rule that the more irregular should be more archaic or proto.

§ 10. Just as the innovation of **awaŋ* 'she' in SDr. has restricted the meaning of **atu* to 'non-human', no separate form for female human was innovated in Kui-Pengo and Kol: -Pa. subgroups to restrict the meaning of **awar* to 'men' only. In the absence of a third formal contrast being innovated, such meaning shift is possible only if the contexts require the extension or restriction of the meanings of either **awar* or **away*.

It can be shown that the semantic structure of PDr **awar* and **away* as represented by Type II is more complex than that of the forms in Types I and III. Languages belonging to Types I and III have simplified the system as follows.⁹

| Type II | Types I and II | |
|-------------------------|---|--|
| (a) <i>*awar</i> : | <i>*away</i> → <i>*awar</i> : | <i>*away</i> |
| [+ Human] [+ Male] : | $\left[\begin{array}{c} (+ \text{ Hum.}) \\ (- \text{ Male}) \\ (+ \text{ Anim}) \\ (- \text{ Hum.}) \\ (- \text{ Anim.}) \end{array} \right]$ | → [+ Hum.] : $\left[\begin{array}{c} \pm \text{ Anim.} \\ - \text{ Hum.} \end{array} \right]$ |

| Types I and II | | | Type II | | | |
|----------------|--------------|---|---|---|---|---|
| (b) | <i>*awar</i> | : | <i>*away</i> | → | <i>*awar</i> : | <i>*away</i> |
| | [+ Hum.] | : | $\begin{bmatrix} + & \text{Anim.} \\ - & \text{Hum.} \end{bmatrix}$ | → | $\begin{bmatrix} + & \text{Hum.} \\ + & \text{Male.} \end{bmatrix}$ | : $\begin{bmatrix} (+ \text{ Hum.}) \\ (- \text{ Male.}) \\ (+ \text{ Anim.}) \\ (- \text{ Hum.}) \\ (- \text{ Anim.}) \end{bmatrix}$ |

Alternative (a) represents a category simplification (progression from complex to simpler semantic and syntactic choices) which is therefore a change rather than retention. This is similar to what happened in To. and Br. when the gender system got totally eliminated.

| Pre-Toda | | Toda | | | | |
|--|---|--|---|---|---|-------------------|
| <i>*awan</i> | : | <i>awaŋ</i> | : | <i>atu</i> | → | <i>aθ</i> |
| $\begin{bmatrix} - & \text{pl.} \\ + & \text{Hum.} \\ + & \text{Male} \end{bmatrix}$ | : | $\begin{bmatrix} - & \text{pl.} \\ + & \text{Hum.} \\ - & \text{Male} \end{bmatrix}$ | : | $\begin{bmatrix} - & \text{pl.} \\ - & \text{Hum.} \end{bmatrix}$ | → | $[- \text{ pl.}]$ |

Therefore, in terms of semantic feature specification it could be said that the PDr. gender-number system as represented by Type II is more complex than the derived systems (Types I and III).

§ 11. Normally plural stems denote the meaning of the singular stems plus the notion of plurality where there are parallel formal contrasts between the singular and the plural. Thus, the singular forms **awanŋu* 'man', **atu* 'others', have corresponding plural forms **awar*, **away*. It is therefore normal to expect **awar* not to include any substantial change in the meaning of **awanŋu* except for the addition of plurality. This gives us a normal and symmetric pattern for PDr. both in form and in meaning.

| Singular | Plural |
|--|--------------------------------------|
| <i>awanŋu</i> 'he' (that man) | <i>*awar</i> 'they' (men) |
| <i>*atu</i> 'she, it' (the one other than man) | <i>*away</i> 'they' (other than men) |

This would then be a starting point-from which Type I is produced by splitting the distribution of **atu* when **awaŋ* 'she' was innovated. A shift in the plural came about (Types and III) with the extension of the meaning of **awar* 'men' to 'men and women' and 'women' as a consequence of changes in the social context of the use of language.

§ 12. Kui-Pengo and Kol. -Pa. subgroups use their finite verbs of the masc. plural both to represent 'they (men)' as well as 'they (men and women)'. When it is necessary to use a verb as the predicate of a coordinate subject denoting men and women, only the masculine pl. form is used; e.g. Koṇḍa :

vār vātar 'they (men) came'

avi vāte 'they (women) came'

avi wār vātar 'they (women) and they (men) came'

but not **avi vār vāte*,

Here, the verb agreement is with the masculine plural which means that a finite verb like *vātar* could occur as predicate in two environments viz., when (1) 'men' and women' is the subject. Subrahmanyam cites similar infinite verbs from Gondi, Parji, and Kolami (1971: pp. 417-419). The Parji example *ōr verrar* 'they (brothers and their wives) came' is revealing since *ōr* a demonstrative pronoun refers to a mixed group of 'men and women'. So also in Koṇḍa there are a few contexts where both the demonstrative plural and the finite verb refer to mixed groups of 'men and women', e.g.

vāru maRar (8. 447) 'they (brothers, sisters in-law) stayed (Krishnamurti, 1969: 138).'

variṇ uṇḍeṇ kuktan (8.459) 'he called them (men and women) to eat' (*ibid.*: 138)

uṭar tiRar, dēvad sōta bastar, nālgi ayli koṇok,

nāl?er moga koṇor (8.465) '(They) ate and drank, came out into the verandah-the four women and the four men' (*ibid.* 139).

These examples provide the correct historical link in the semantic shift of the derivatives of **awar* from 'men' to 'men and women'. The innovation of SDr., Te., and Kur. -Malto provides the last link in the semantic chain, i. e. using **awar* for the exclusive group of women which is absent in the Kui-Pe. and Pa. -Kol. subgroups.

§ 13. We have until now believed that Ta. -Go. -Kui -Kui Konda -Pengo -Manda and Kol. -Naiki -Pa. -Gad. -Oll. are the sub-branches of the CDr. main branch. This was the position I had held even until 1965. However, my recent researches point to a closer affinity between Te. -Kui sub-group and South Dravidian (Ka-Ta), which leaves the Kol. -Pa. sub-group as the only branch of CDr.¹⁰ Our preconceptions about subgrouping have led us to establish certain features as innovations binding the languages of the CDr. group and one of these is the gender system. Now we notice that the Te. -Kui subgroup and the Kol. -Pa. subgroup preserve the PDr. gender system and since they are not related except at the level of PDr. this is not a shared innovation but a retention.

It was the same aprioriness about CDr. that led scholars to believe that **awan* 'he' was PDr. as represented in SDr. whereas **awan̥tu* whose reflexes occur in Te. -Kui and Kol. -Pa. is said to be an innovation (Emeneau 1955 : §10. 15, Subrahmanyam 1969 b, §5). However, I have always thought **awan̥tu* 'he' to be the PDr. form and **awan* an innovation in SDr. by the loss of final *t̥* (Krishnamurti, 1961 : §4.44, Burrow and Bhattacharya 1970 : §68). The following arguments favour **awan̥tu* as PDr.

(a) Loss of a final consonant is a more normal process than addition.

(b) The oblique stem in all languages reconstructs to **awan-* (Emeneau 1955 : §10.15).

| | Nomin. | Obl. |
|-----------|------------------|--------------|
| SDr. | * <i>awan</i> | <i>awan-</i> |
| Te. -Kui | * <i>awan̥tu</i> | <i>awan-</i> |
| Kol. -Pa. | * <i>awan̥tu</i> | <i>awan-</i> |

In SDr., either the final consonant is lost or the nominative might have been restructured on the analogy of the oblique as suggested by Burrow and Burrow and Bhattacharya (1970 : § 68, pp. 35-6). In Koṇḍa finite verbs agreeing with the masculine singular subject end in --*an*, e. g. *vānru kitan* 'he did'. But, when this clause is followed by a vowel (interrogative *a* or coordinate *e*) the verb form has *r* following *n*.

vānru kitanru-a ? 'Did he do (it) ?'

vānru kitanru-e soRan 'He did (it) and went'

These examples show that the underlying forms had **kitanru* of which the final *r* was lost in the utterance final position. A similar situation is noticed in Pengo where the 3rd per. dem. pronoun is *avan* in the nominative but in obliques when followed by a vowel it is *avanj-* (<*awan̥t-*) (B and B 1970 : § 68).

(c) Within SDr. Kannada has relic forms which attest to an original nominative *t* in plural formation of certain masculine noun and pronouns : (sg.) *avan* 'he', (pl.) *avandir* 'they', *ivan* 'this man' : *ivandir*, *magan* 'son' : *magandir* 'sons'. The historical and etymological analysis of these forms should be *avand-ir*, *ivand-ir*, and *magan-dir* with *ir* as human pl. and with the stems derivable from **awan̥t*, **iwant̥*, and **makant̥*, although traditional grammarians have treated -*dir* as plural (Ramachandra Rao 1972 : 54). Some of the Modern Kannada dialects have generalized -*ndar* and -*ndru* as the plural suffix after kinship terms (Kushalappa Gowda 1968 : 218).

The above arguments prove beyond doubt that **awan̄tu* was PDr. with the loss of *t̄* in SDr. as an innovation.

Once it is known that Te. -Kui and Kol. -Pa. do not constitute the CDr. branch, the foregoing account establishes that the gender number system as shown in Kui-Pengo, and Kol. -Pa. is a retention in them and not an innovation.

§ 14. In languages which employ *-Vr* as human suffix its use for denoting the exclusive group of women is rare being the last link in the evolution of its meaning. For instance: *-ru* occurs in Old Telugu only with a small class of noun stems denoting male human. e. g. (sg.) *mallūḍu* 'wrestler': (pl.) *malluru*. (sg.) *bālūḍu*, pl. *bāluru* 'boys'; it also occurs in indefinite demonstrative plural like *pekkuru* 'many persons'. There is a single case where *-ru* occurs with a stem denoting female human exclusively, *āṇḍ-ru* 'women' derived from PDr. **āḷ*. This also shows that the innovation is not thorough going in all the languages concerned. In this respect the Telugu case is not different from that of Kui-Pe.

The reflexes of PDr **ka*, **l*, and **kaḷ* (which were originally limited to the non-masculine nouns) extended to the masculine (human) nouns - threatening the replacement of *-Vr*. As a consequence, most of the literary languages as well as some non-literary languages have confined the use of *-Vr* to polite singular in the 3rd person. Thus Te. *wāru* 'he' (polite) as opposed to *wāḷḷu* (< *wāṇḍ-* 'he' -*ḷu*) 'they' human). Tulu also uses *ārī* 'he' (polite) and *ā:kuḷu* 'they' (hum.). (For similar usage in Ta., Ma. and Ka. see Shanmugam 1971:128-9).

§ 15 In synchronic as well as diachronic treatment of languages, the pronominal system is much more basic and primary than pronominal agreement in the finite verbs and predicative nouns. The choice of pronominal suffixes in finite verbs proceeds from the choice of the subject NP of a sentence (which is replaceable by a pronoun), and not vice versa. Secondly the pronominal (gender-number-person) contrasts found in finite verbs or predicative nouns are either of the same number or fewer than pronouns that govern them as subjects of sentences and not vice versa. In Dravidian also there are languages which have more contrasts in subject pronouns than the pronominal suffixes in the finite verbs; on the contrary, there is no language which has more pronominal reference contrast in the finite verbs than the number of pronouns that govern them in the subject position.¹¹ Since 'agreement' between the subject and the verb in gender, number, and person is a redundant system, we notice the process of simplification

affecting the verb system first. Consequently, there is no one-to-one relationship between the number of pronouns used as subjects and their corresponding reference in the finite verbs. This diachronic process is well-attested by the Dravidian languages.

§ 16. Out of the six possible contrasts in the demonstrative pronouns in Dravidian, only Pengo has all the six it has only five contrasts in pronominal reference in finite verbs.

[Numbers are used as before to represent semantic ranges 1 = he (man), 2 = she (woman), 3 = it (non-person), 4 = they (men), 5 = the (women), 6 = they (non-persons); O = absence of a category (unexpected/uninherited): - (minus) = loss of a category; [] = enclose the semantic range represented by a formal contrast. Formal contrasts corresponding to semantic ranges are underlined. Both the pronominal words as well as the corresponding pronominal suffixes in verbs are indicated by numbers, defined above. [data drawn from P. S. Subrahmanyam 1971 : 401-2; S. V. Shanmugam 1971 : 1-29)]

| | Subject prsonoun | | | Finite verbs | |
|-------|------------------|---------------------|------------------------------|---------------------------------|----------------------------|
| (a) | <i>Singular</i> | | <i>Plural</i> | <i>Singular</i> | <i>Plural</i> |
| Pengo | <u>1</u> | <u>2</u> <u>3</u> , | <u>4</u> <u>5</u> <u>6</u> : | <u>1</u> [<u>2</u> <u>3</u>], | <u>4</u> <u>5</u> <u>6</u> |

The rest of the languages show a maxium of five formal contrasts. Simplification of categories in the verbs seems more typologically motivated then genetically. Therefore, we notice patterns of category neutralization within the languages of a subgroup, among the dialects of a language, between two stages of the same language, and even different types of finite verbs of the same language.

In SDr I (Ka. -Ta. subgroup) the innovation of the feminine sg. is found both in the pronominal system and in the predicates. However, in the finite verbs, different languages simplify pronominal reference in different ways.

Standard Tamil (Old and Modern), Old Ma., Iruḷa, Standard Ka., and Tulu have all the five contrasts both in the subjects and in the predicates :

| (b) | Subject pronouns | | | Finite verbs | |
|-----|------------------|---------------------|--------------------------|------------------------------|------------------------|
| | <i>Singular</i> | | <i>Plural</i> | <i>Singular</i> | <i>Plural</i> |
| | <u>1</u> | <u>2</u> <u>3</u> ; | [<u>4</u> 0] <u>6</u> : | <u>1</u> <u>2</u> <u>3</u> ; | [<u>4</u> 0] <u>6</u> |

The Kāṇikkāra dialect of Ta., Mdn. Ma., Erukala (?dial. of Ta.), Koḍ., and Toda have lost gender-number distinction in the verb system either by a total loss of personal suffixes (as in Mdn. Ma.) or

by extending the distribution of the non-human suffix (3) (as in To. and Koḍ.). They, however, retain pronominal contrasts in the subject position to varying degrees.

| (c) | Subject pronouns | | Finite verbs | |
|-----------------|----------------------------|-------------------|-----------------|----------|
| | Singular | Plural | Singular | Plural |
| Ta. (dial. Kāṇ) | <u>1</u> <u>2</u> <u>3</u> | , [4 0] <u>6</u> | : - - - | , - 0 - |
| Erukala | [- - <u>3</u>] | , [- 0 <u>6</u>] | : - - - | , - 0 - |
| Mdn. Ma. | <u>1</u> <u>2</u> <u>3</u> | , [4 0] <u>6</u> | : - - - | , - 0 - |
| To. | [- - <u>3</u>] | , [- 0 <u>6</u>] | : [- - <u>3</u> | , - 0 -] |
| Koḍ. | <u>1</u> <u>2</u> <u>3</u> | , [4 0] <u>3</u> | : [- - <u>3</u> | , - 0 -] |

Kota which is more closely related to To. than any other member of SDr. has four contrasts in pronouns as well as in the verbs with extension of the neut (non-hum.) sg. to the pl. also.

| (d) | Singular | Plural | Singular | Plural |
|-----|----------------------------|------------------|------------------------------|------------------|
| | <u>1</u> <u>2</u> <u>3</u> | , [4 0] <u>3</u> | : <u>1</u> <u>2</u> <u>3</u> | , [4 0] <u>3</u> |

In some of the modern Kannada dialects also we notice category reduction. Gowda Kannada has three subject pronouns 1 3 and 6, but only number distinction in the plural. This means that the gender-distinction is totally lost in the finite verbs, but among the subject pronouns gender is lost in the plural but not in the singular. In the Southern Havyaka dialect of Kannada, there are three parallel contrasts both in subjects and in finite verbs.

| (e) | Subject pronouns | | Finite verbs | |
|-------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | Singular | Plural | Singular | Plural |
| | <u>1</u> <u>2</u> <u>3</u> | <u>4</u> <u>5</u> <u>6</u> | <u>1</u> <u>2</u> <u>3</u> | <u>4</u> <u>5</u> <u>6</u> |
| Ka. (Gowd. dial.) | <u>1</u> [- <u>3</u>] | , [- 0 <u>6</u>] | : [- - <u>3</u>] | [- - <u>6</u>] |
| (S. Hav.) | <u>1</u> [- <u>3</u>] | , [- 0 <u>6</u>] | : <u>4</u> [- <u>3</u>] | [- 0 <u>6</u>] |

In SDr II, i. e. Kui, Kuvi, Koṇḍa, Pengo and Maṇḍa (Te. excepted) and in CDr. (Kol., Naiki, Pa. Oll. and Gadaba) which represent the PDr system, there are four contrasts both in the subject pronominal system and in the finite verbs. There is not a single case of neutralization or overlap in agreement:

| (f) | Subject pronouns | | Finite verbs | |
|-----|------------------------|--------------------------|--------------------------|--------------------------|
| | Singular | Plural | Singular | Plural |
| | <u>1</u> [0 <u>3</u>] | , <u>4</u> [0 <u>6</u>] | : <u>1</u> [0 <u>3</u>] | , <u>4</u> [0 <u>6</u>] |

When it was a question of referring to mixed groups of 'men and women', 4 (men) semantically covered 5 also; otherwise 5 goes with 6.

Though Te. and Kur. and Malto agree with the above in their subject pronominal system they part company in their pronominal reference system in verbs. Kur. and Malto have lost non-human pl. reference in verbs by extending the semantic range of the singular form. This simplification occurred in the verbs in both Kur. and Malto, but it extended into the subject pronouns only in Malto.

| (g) | Singular | Plural | Singular | Plural |
|--------|---|---|----------|--------|
| Ta. | <u>1</u> [0 <u>3</u> , [4 0] <u>6</u> : | <u>1</u> [0 <u>3</u> , [4 0] <u>6</u> | | |
| Kur. | <u>1</u> [0 <u>3</u>] , [4 0] <u>6</u> : | <u>1</u> [0 <u>3</u>] , [4 0] <u>3</u> | | |
| Malto. | <u>1</u> [0 <u>3</u>] , [4 0] <u>3</u> : | <u>1</u> [0 <u>3</u>] , [4 0] <u>3</u> | | |

Finally, we come to Brahui which has lost all semantic traces of gender both in the subject pronouns and in the verbs. Emeneau has argued that this is due to the influence of Balochi or Persian (1965:59-71).¹²

| (h) | Singular | Plural | Singular | Plural |
|-------|-------------------------------------|---------------------------------|----------|--------|
| Brah. | [- 0 <u>3</u>] , [- 0 <u>6</u>] : | [- 0 <u>3</u>] [- 0 <u>6</u>] | | |

§ 17. From a study of the subject-verb concord of the pronominal system in Dravidian, we notice that the languages which have retained the PDr. system of contrasts in the subject position have retained all the contrasts in the finite verbs also. It is only in the subgroups or languages which have innovated either a feminine category in the singular or a human category in the plural that the process of simplification is widely prevalent. The process affects verbs more than the subject pronouns, plural category more than the singular number category more often than gender. If this is any evidence it only shows that, once the process of change and deviation from the proto-system begins it leads to a chain action of changes resulting in a simpler resultant system than the ancestral type. We can take this as additional evidence for Type II representing PDr.

§18. *Summary.* Three dominant types of gender-number distinction have been identified, of which the one represented by the languages of the subgroups SDr II (Go. Kui, Kuvi, Koṇḍa, Pengo and Manda) and CDr. (Kol., Naiki, Pa., Oll, and Gadaba) is argued to be the retention of the PDr. type with four contrasts in demonstrative pronouns and in pronominal reference in finite verbs. The reconstructed forms are:

| Singular | | Plural |
|----------------------|---|---|
| * <i>awanṭu</i> 'he' | : | * <i>awar</i> 'they (men), (men and women)' |
| <i>atu</i> 'she, it' | : | <i>away</i> 'they (women and non-human)' |

The other major types and subtypes have been shown as resulting from innovations, of which at least one is genetically traceable, i.e. **awa!* in SDr I. The rest of the innovations constitute typologically motivated changes resulting in fewer contrasts and simpler systems.

In this paper I have not made any attempt to explain the various phonological changes or innovations which have affected the forms of different languages since no controversial issues are involved there.

* 19. From a synchronic and diachronic study of gender-number in Dravidian the following general observations can be made :

1. Categorical neutralization in agreement takes place in verbs before it spreads into the subject pronominal system.

2. Neutralization takes place either (a) by loss of pronominal suffixes or (b) by extending the distribution of one of the unmarked category markers (i. e. non-human or neuter **atu*).

3. Reduction of gender-number categories tends to be more typologically motivated than genetically and therefore does not serve always as a strong basis for subgrouping.

4. The number of gender-number contrasts in governed positions is never larger than it is in the governing positions.

5. Category simplification (neutralization) takes place more often in governed positions than in the governing positions.

6. Male-human category does not overlap either formally or semantically into the other exclusive categories. The overlap is always found in non-male-human categories.

7. In the process of simplification of categories, there are cases of suspension of (a) both number and gender (Ma., etc. in verbs); or (b) suspension of gender but retention of number (Ka. dial Gow. and S. Hav. in verbs; To. Br. in pron.) but no language has retained gender alone totally suspending number¹³.

8. In gender-number reconstruction the contrastive evidence of subject pronouns is more basic and primary than agreement features in verbs.

9. In the process of simplification (neutralization) it is more often the unmarked categories (singular in number. non-masculine in gender) that extend their ranges of usage than the marked ones. Thus non-masc. **atu* (sg.) replaces **away* (pl.), non-masc. **atu* and **away* replace masc. *awantu* and *awar* respectively and not vice versa. (exception Halakki dial. of Kannada),

10. Concord contrasts cannot be taken as the basis of reconstructing the the gender-number system of PDr. or any one of its subgroups.

NOTES

1. Languages falling under A have a primary contrast of animate and inanimate as in the Bantu languages of Africa and Alogonquian languages of North America. A three-way contrast is possible in languages of B and C (e. g. Indo-European), viz. masculine, feminine and neuter with a lot of overlap in the non-male-human categories between form and meaning. Languages of B and C with a two-way gender system (viz. masc. -fem. or masc. -neut.) as in Hindi, for instance, show even a greater degree of overlap between form and meaning. Normally derivational processes derive the marked ones (indicated with minus features) from the unmarked, i. e. inanimate from animate, feminine from masculine. Chart I mainly reflects the oppositions present in the Dravidian gender sub-types.
2. In Dravidian it is more often the meaning than the form of a nominal stem that determines its gender. Replaceability by one of the demonstrative pronouns is a testable syntactic criterion. The primacy of pronouns in gender distinction is also seen in their being copied in the finite verbs as a characteristic of subject-verb agreement and in the pronominalization of abstract nouns and adjectives by the addition of pronominal suffixes (cf. §§15. 16).
3. Malto has iterative forms *āw āwer* 'those persons' and *āw āwe* 'those ihings' 'when the pronoun points back to objects or circumstances previously mentioned or understood, and is then, for the sake of signifying a plurality of objects, doubled' (Droese, 31-2). These forms are reminiscent of PDr. **awar* and **away*.
4. The specialization of the *-k* suffix (or more accurately the absence of *-ñ*) as the plural marker of female human nouns (mainly kinship items) as opposed to non-human appears in the other languages of the Kui-Pengo subgroup. Kui *-ska*: sg. *angi* 'younger sister', pl. *angi-ska* (Winfield), p. 14), Gondi *-hk*: sg. *sēlar* 'younger sister' pl. *sēlā-hk* (Trench, 36), Koṇḍa *si-k*: sg. *bīb-si* 'elder sister': pl. *bīb-sik*. Pengo has apparently extended this derivational mechanism into the demonstrative system and

- innovated a new grammatical category both in the singular and in the plural. Kui -*sk* and Go -*hk* are traceable to morphemes *si-k* (Krishnamurti, 1969:§§4.7.17; Subrahmanyam 1969:§35).
5. Emeneau had pointed this out as early as 1955 (§ 10.17).
 6. It is unfortunate that Shanmugam often confuses between male and masculine, female and feminine (semantic and grammatical nomenclature).
 7. I use the following abbreviations for subgroups:
Te.-Kui = Te., Go., Kui, Kuvi, Koṇḍa, Pengo and Maṇḍa;
Kol.-Pa. = Kolami, Naiki, Parji, Ollari and Gadaba;
Kur. -Malt. = Kurukh and Malto; *Kui-Pengo* = all languages under *Te.-Kui* except Telugu.
 8. Evidence for the use of the reflexes of PDr **awar* in the sense of 'men and women' (mixed groups) in Kui-Pengo and Kol. -Pa. languages is given in § 12 below.
 9. In semantic specification, I have eliminated the features [+pronoun, +plural] since they are common to all the forms in question.
 10. Substantial evidence for this revision comes from phonology and morphology which it is not possible to go in any detail in this paper. PDr* *c-/s* > **h-* > \emptyset - operates in SDr. as well as in the Te. -Kui group. PDr **i* **u* are lowered to **e* **o* before **a* in both the groups e.g. **cup*: **cuwar* 'salt': Go. *sovar*, *hovar*, *ovar*, Koṇḍa *sōru*, Kui *sāru*, Kuvi *hāru*, Kuvi *hāru*, Pe. *hōr*, Maṇḍa *jār* id. [*DED (S)* 2201]. This subgroup shares with SDr **u* > **o-* before -*a* and *s-* < *h-* < \emptyset . Its own innovations include *ova* > *ō* > *ā*: *s-* > *j-* In the formation of transitive stems from intransitives by changing stem-final (intr) -NP > (tr.) (N) PP, the Kui-Pengo sub-group retains the PDr trait as well as SDr. The most clinching evidence comes from a study of the personal pronouns. It was at the undivided stage of these two sub-branches (SDr. and Te. -Kui) that **ñān* was innovated as a doublet of **yān* 'I'. Only these languages represent an *n-* form beside the derivative of **yān*. As a consequence of this the distinction between the two 1st pers. plurals (incl: excl.) got disturbed only in these languages. This revision represents my present thinking as opposed to my earlier postulation of **ñān* at the PDr. stage itself (Krishnamurti 1968 : 194 ff.). I would now refer to two SDr branches : SDr I = Ka., To., Ko., Koḍ., Ta. and Ma.; SDr II = Te., Go., Kui, Kuvi, Koṇḍa, Pengo, and Maṇḍa; CDr then consists of Pa., Kol., Naiki, Ollari and Gadaba.

11. Shanmugam (1971 : 10-11) gives a comparative chart of the number of contrasts between demonstrative pronouns and pronominal reference in finite verbs. He cites the case of Kasaba (?) finite verbs. According to this there is only one neuter sg. form in demonstrative pronouns but both singular and plural reference in finite verbs. However he quotes only a four-way contrast in verbs on P. 8. Masc. sg. and fem. sg. are represented alike *ujjixā* 'he rules' 'she rules'. More data is needed before this can be taken as an exception.
12. In Brahui the non-personal pronouns *ō-d* 'he, she, it' and *ō-fk* 'they' have totally replaced the masculine pronouns (*-d* < **at-*; *-f* < **aw-*; *-k* is nominal plural and *ō* demonstrative base). However, all the four Dravidian gender contrasts in form are available in the Brahui data although their meaning is neutralized. The indefinite pronouns have suffixes *-as*, *-a*, *-ar*, *-ad* *-ar* - all in free variation, e. g. *ēkh-adar*, *ēkh-ar*, *ēkh-a*, *ēkh-as* 'that much'. The interrogative is *arā* 'which one?' (anim. or inanim.). The personal suffixes in finite verbs preserve the formal differences of Drav. gender (Bray. §§142-5, 149, 222-24) though the semantic distinction is lost.

3rd person

| | <i>Singular</i> | <i>Plural</i> |
|--------------------|-----------------|---------------|
| Present indefinite | { e ē | ir ēr |
| Present future | ik | ira |
| Probable future | ce | or |
| Past conditional | as | ur |
| Past | ār | ur |
| Imperfect | āra | ura |
| Plu perfect | { as ur | as ur |

These illustrate a semantic loss of gender distinction under the structural influence of Balochi which led to free variation of forms. The fact that traces of PDr formal contrasts of gender are still preserved as *-d*, *-f* : *Vs*, *Vr* (< **at-*, **aw-* : **ant* : **ar*) without analogical levelling in form shows that Brahui sustained such loss only in recent times (after it had separated from Kur. and Malto). On formal grounds there is evidence that Brah. originally had a four-way contrast of gender-number as in the other two NDr languages.

13. This observation is supported by two grammatical universals formulated by Greenberg (1963 : 95) :

Universal 36. If a language has the category of gender, it always has the category of number.

'Universal 37. A language never has more gender categories in non-singular number than in the singular'.

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INTENT CONSTRUCTIONS IN DRAVIDIAN

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The purpose of this paper is to examine some syntactic phenomena in Dravidian, particularly those in Tamil, which are problematical for a number of reasons. These are constructions expressing the intent of someone to perform some action, but where no lexical form appears in the surface structure which can be glossed "intend" as separate from lexical items which mean something like "think, hope, expect" and other verbs with future action complements in English. This situation is thus different from most Indo-European languages with which I am acquainted, and raises the question of whether such constructions exemplify a possible regional universal in the grammars of Indian language.

The kinds of sentences one finds in the Modern Dravidian literary languages and/or their spoken varieties are actually of a number of different types, with not only different surface structures but probably of different remote structures, which makes the problem more than just superficially one of the lack of a lexical item or two.¹

The structures. The sentences used in Tamil are of a number of types, some of which are found in Telugu and Kannada, and one of which is found at least in Hindi, and perhaps also in the other Indo-Aryan languages. What is interesting on another level is that occurrence or the lack of it of any of the following types seems to indicate the existence of some regional dialect "zones" in the Indian subcontinent which may or may not follow the ordinary borders between one language and another. This point will be discussed in detail below.

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1. It should be noted that although Tamil, e. g., has verbs corresponding to English "like, want, think/hope", etc., only the verb /nene/ "think hope" is used in the periphrastic *intent* sentence, and even that it does not appear in the surface structures of all the possible constructions.

An English sentence like

- (1) I intend to go home.

can be expressed in Tamil in the following ways :

- (2) naan viiTTukku pooka-Lam-NNu irukkreen.
- (3) naan viiTTukku pooka-Num-NNu irukkreen.
- (4) naan viiTTukku pooka-Num-NNu nanekkreem.
- (5) naan viiTTukku pooka-laam NNu nenekkreem.
- (6) naan viiTTukku poo-rat-aa irukkreen.
- (7) naan viiTTukku poo-rat-aa nenekkreem.
- (8) enakku viiTTukku pooka-laam-NNu irukku.
- (9) naan viiTTukku pooka-laam-NNu utteecam.
- (10) naan viiTTukku pooka-laam-NNu neneppu.

The surface structures of these sentences fall into a number of different types :

- Type (1) those where an embedded sentence 'go home' (viiTTukku poo-) is followed by the copuls /iru/, as in examples (2) and (3) :
- Type (2) those in which the embedded sentence 'go home' is followed by the verb /nene/ 'think-hope'.
- Type (3) those where the embedded sentence is followed by a noun phrase, as in (9) and (10).
- Type (4) those where the embedded sentence has a modal form of the verb /poo/ 'go', i. e. either the modal /laam/ 'may' or /vee)Num/ 'want-must', as in (2, 3, 4) and (8, 9, 10).
- Type (5) those where the embedded sentence has its verb in the form of a verbal noun to which is affixed the 'adverbial' marker /aa(ka)/, as in (6) and (7).
- Type (6) those where the semantic subject is marked with the dative case marker and the copula does not agree in PNG with the semantic subject, as in sentence (8). This is in fact the type which is commonest in Telugu, and is also found in Hindi.

Types (1) and (2), exemplified by sentences (2-5) have essentially the same surface structure, differing only in the selection of one or the other modal form, and in the selection of the verb /nene/ 'think-hope' over the copula /iru/. The surface structure of these two types can be represented as follows :

The problem with this analysis is that the embedding marker is still /NNu/, which usually only precedes verbs; when it precedes noun it should have the adjectival form /nkra/ or past /NNu/, which would then give us a single NP, which does not constitute a complete sentence in Tamil. Since this is not the case, /utteecan/ and /neneppu/ seem rather to be nominalizations which have taken place after the rest of the transformations, including insertion of embedding marker /NNu/, but which still constitutes a questionable state of affairs, the answer to which is probably not available at this point.

Note that although the embedded sentences are not marked for tense at all, since the embedded verbs are in the forms of models, which are not marked for tense in Dravidian, the tense of the main verbs of the sentences can vary. The tense of the main verb can be either present or past, with the predictable meaning change as in

(13a) maTraasukku pookalaam-NNu iru-nt een.

1 2 3 4 5 6

"I intend-ed to-go to Madras."

6 4 5 3 2 1

(13b) anke reNTu varSam tanka-laam-NNu nene-cc-een.

1 2 3 4 5 6 7 8

"I intend-ed to-stay there two years."

8 6(5?) 7 4 1 2 3

(13c) avan oru tanti anupprataa iru-nt-aan.

1 2 3 4 5 6 7

"He intend-ed (PNG) to-send a telegram."

1 5 6 7 6 2 3

(13d) "maysuur-ukku vara-laam-NNu iru-pp-aa.

1 2 3 4 5 6 7 8

She will intend to-come to Mysore."

8 7 6(4/5) 3 2 1

The future, however, is not possible in *intent* sentences, as in (8. d), which also happens to be a restriction in English; i. e.,

(13e) "I will intend to do it tomorrow"

and other such "future intent" sentences are unacceptable in English, as well as in many other languages.²

Sentences (9) and (10), however, are essentially tenseless, since the nouns /utteecam/ and /neneppu/ have no tense, and because the

2. For some reason expressions in English like (13f) Do you know what your intention *will* be? or French (13g) J'*aurai* l' intention de faire un voyage, where the actual lexical item meaning intend/intention is an NP, the future is more acceptable.

verbs of the embedded sentences in (9-10), as in all the others (except 6) have the form infinitive plus modal, while (6) has the form *present* verbal noun (probably a function of the present tense being the least marked.)

This lack of future intent sentences in many languages is probably the case because *present intent implies future action*. There can be no meaningful distinction between future intent and present intent in any language I am acquainted with because any future intent would be ipso facto known in the present, and any unknown future intent could not be talked about in the present. In a Chomsky-type deep structure grammar one would require a selectional restriction with intent sentences (in many, if not all languages) to the effect that future intent is not possible; as we will see, there is really a semantic reason, not a syntactic one, why future intent is meaningless. That is, in an abstract syntax with later lexical insertion, there would probably be a higher VP "know" dominated in turn by present or past in all intent sentences, with the tense marker Present or Past eventually undergoing attachment to the lower *intent* VP, however it is realized lexically.

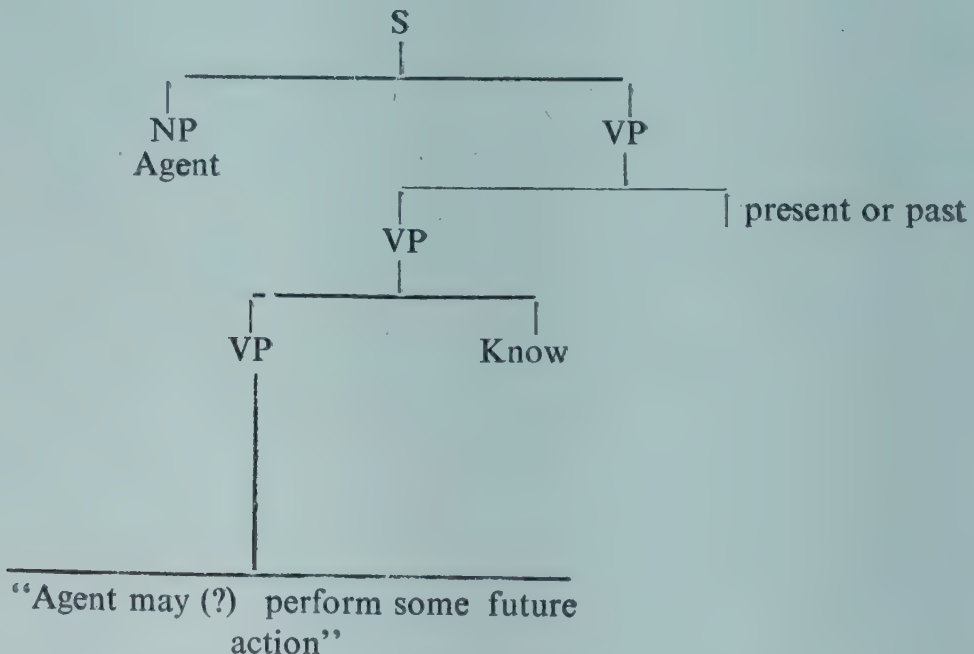


Fig. 3. Semantic structure of intent sentences

Aside from the above proposal, however, we are still faced with the problem of how the remaining semantic notions, whatever they may be, are related to the surface structures in sentences (2-10). Before positing transformations, which would be premature in view of our lack of knowledge of what they would have to apply to, we ought to

examine how, if at all, sentences (2-10) differ, and secondly, try to isolate what lexical item or morpheme, if any, means *intend/intent*. The fact is that sentences (2-8) are not semantically *identical*, even though they are semantically *similar*. As one might expect, the verb /nene/ and the noun /neneppu/ are more similar in meaning than any of the other items which occur after the embedded sentence. That is, the sentences (4), (5), and (10) are more or less semantically equivalent, whereas the sentences (2), (3), (6), and (9); i. e. the sentences with /iru/ and /utteecam/ are semantically equivalent in one sense, although the set with /iru/ allow possible ambiguous readings, which the set with /nene (ppu)/ do not. Sentences such as (3) and (4), as we have already mentioned, with the modal /Num/ 'must' instead of /laam/ 'may' also are possibly ambiguous; i.e., besides the "intent" reading we can also get "literal" readings. The ambiguities for (3), and (4) are as follows :³

- (3) /naan pookaNum-NNu irukkreen/ (a) (literal) "I want to go to the mountains;" (b) "I intend/feel like going to the mountains."
- (4) /naan pookaNum-NNu nenekreen/ (a) (literal) "I think I must (i. e., require myself/feel compelled to) go to the mountains." (b) "I think someone requires me to go to the mountains."

Leaving aside the /Num/ forms, we see that what is really of interest are the sentences with /iru-utteecam/ on the one hand, and /nene-neneppu/ on the other.

The main difference between /iru (utteecam)/ sentences and /nene(ppu)/ sentences is that the /iru/ types seem to be more "definite" in intent, or in probability. The contrast between the two types becomes more obvious if the embedded sentence is not in agreement in PNG with the /iru/ or /nene/ sentences; e. g.,

- (14) /naan avan varalaam-NNu irukkreen/ "I expect that he will come".

1 2 1 2
"I am expecting him, waiting for him."

- (15) /naan avan varalaam-NNu nenekreen/ "I think he may/will come".

1 2 3 1 2 3

In other words, the lexical item *expect* turns up in English when the subject has plans for other people rather than himself (leaving aside

3. This is in the western dialects continuous with the Kannada speaking area; in other dialects (3) and (4) have only 'literal' readings.

for the moment such sentences as "I expect I will come" and "I intend for him to come," which involve, I believe, additional propositions about the desire or will of the comer) while *intend* has to do with one's own expectations or knowledge of one's own future actions;⁴ furthermore, *expect* seems to have underlying it the sentence (proposition? semantic structure?) "I know/think there is a possibility greater than chance that will happen", whereas the think/thought types have underlying them something like "(I know) there is a chance, but not a probability, that will happen." That is, the Tamil intent construction with copula /iru/ "expect" implies a greater certainty in the chances of a future event occurring, while the /nene/ "think" constructions imply lesser chances.

This still leaves us with the difficulty of explaining how it is that these constructions mean what they do, since there is no lexical item in any of the sentences which means specifically "intend" as differentiated from "think." Dictionaries usually gloss /nene/ as "think" or "hope", and it only seems to translate as "intend" if the sentence is one of the types (4, 5, 7, 10) Otherwise, as in the following sentences, /nene/ means "think or hope".

(16) /naan viiTTle irukkreen-NNu nenekreen/

1 . . . 2 3 4 . . . 5 6

"I think that I am in the house."

6 . . . 5 1 4 3 . . . 2

whereas if we change the finite verb of the embedded sentence to the modal /laam/, we get the "intent" reading we have been discussing.

(17) /naan viiTTle irukkalaam-NNu nenekreen/

1 . . . 2 3 4 . . . 5 6/7

"I intend to stay/be in the house."

1 5/6 . . . 4 3 . . . 2

In other words, if we follow the convention in transformational linguistics that transformations do not introduce meaning or change meaning in some way, we can not contend that /iru/ and /nene/ "mean" *intend* in these constructions if they do not have that meaning anywhere else, or in isolation. Accordingly, there must be some element or elements in the underlying structures of these sentences that "means" *intend* but which has been deleted or somehow not realized lexically in the surface structure of these sentences. It seems

4. There may be also a possibility that there is a performative element in intent, in that statements of intent seem to imply a commitment to some future action, although intent is much less than a promise or an oath, swearing to perform some future action.

highly unlikely that Tamil or any language would have a "lexical item" meaning "intend" but which was never realized as an overt lexical item in the surface structure. It seems more reasonable to examine what the semantic sources of the surface meaning "intend" might possibly be in these sentences. For instance, it is possible that since all these *intent* sentences (except (6)) have a modal embedded in them, that modality i. e., *possibility* or *chance* or *likelihood* are a part of what intending is all about, not only in Tamil, but in English as well. In other words, as we mentioned earlier, intending to do with thinking or cogitating or calculating or knowing that something has some sort of chance of happening, barring illogical changes of mind, caprice, whimsy, acts of God, or other calamities.

Thus it is probably no accident that all but one of the sentence (2-10) have a modal embedded before the main VP, and that aside from dialectal differences, that modal is usually "may". The exception is sentence (6) with a so-called adverbial /aa(ka)/ attached to a verbal noun for which at the moment no ready explanation springs to mind. Such /aa(ka)/ + copula constructions, e. g.,

- (18) /naan sariy-aa(ka) irukkreen/ "I am all-right (now)."
 1 2 3 4 1 4 2 3

usually are used when a notion of temporary/non-habitual state is indicated. One is tempted to posit that (6) in perhaps a duratively-marked version of the others (since the regular durative marker /kiTTiru/ attached to the copula in, e. g., (2) would be somewhat strange, and that its English translation ought better to be

- (19) "I *am* intending (at the moment) to go to the mountains."

This introduces another complexity, of course, that of the duration of intent, and means that we ought to consider whether intent is therefore a non-stative notion (since stative verbs, at least in English,

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5. It also seems unlikely that the suggestion made by Agesthalingom (in the commentary on this paper), namely that all the sentences with some form of /iru/ after the embedding marker /NNu/, i.e., (2, 3, 6) have had /nene/ "think-hope" deleted from them, since it would be hard to propose conditions for the deletion of /nene/ which would not apply to other verbs. Agesthalingom's suggestion is based on examples where /NNu/ is followed by /kiTTiru (kkreen)/ the durative aspect marker, which must follow a main verb. The problem with this is that /NNu/ is sometimes followed by aspect markers, i. e., it functions as a verb, as in /appaTi-N (Nu)-TTu/ "having said (thusly)", and the non-grammaticalness of /NNu-kiTTirukkreen/ except with a deleted /nene/, is not explained when there is no evidence that the deleted item is in fact /nene/, and not something else, e.g., /iru/. Sentences of type (8) also, would be particularly hard to justify with a deleted /nene/, and they are among the most commonly found types in the subcontinent to express intent, as we have seen.

are non-duratively marked) or whether there is some higher predicate which is non stative, even though we might still posit a higher know, which is of course stative; i. e., we do not get (in standard English)

- (20) “*I am knowing that there is a good chance I will go to mountains.”

This requires, at least in Tamil, more work on durations, and the whole question of verbs which imply future results, such as hope, decide, commit (oneself to), promise, expect, and other verbs of cognition. It is quite probable that their semantic structure is quite complex, but that the two notions that I have proposed, namely *present knowledge* and *modality*, will prove to be a part of the semantic structure of at least *intent*, if not some of the others.

APPENDIX

It is perhaps of some interest to note that the distribution of the various types of intent constructions (1-6) in Dravidian and possibly Indo-Aryan does not follow the usual borders of the languages as represented by linguistic States. Type (6), for instance, is present in the whole South Dravidian/Telugu area (at least in the literary languages) and also in Hindi, and is perhaps Pan-Indian in distribution. Type (1) is commonest in Tamil and Kannada, but the ‘must’ modal in Type (4), while common in Telugu and Kannada, is not common in all Tamil dialects, but only in those adjacent to the Kannada/Telugu speaking areas. Thus a map of the distribution of some of these constructions would have various overlappings, the borders of which would not correspond to the usual language borders in South India. Since apparently Marathi also uses the modal ‘ought’ in some intent constructions, we see here that Type (4) with ‘must’ is common in a sort of central-south ‘zone’ which extends into the Tamil area in border districts.

COMMENTS ON D. P. PATTANAYAK'S PAPER ON CASTE AND LANGUAGE

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Towards the very end of his paper Mr. Pattanayak declares that "the burden of argument of this presentation is that the notion 'caste dialect' is *unscientific and unnecessary*". (ijdl Vol. IV No. 1, 1975 p. 102) But immediately after, in the next sentence, he seems to relent a little—just enough to observe that "*caste may be one of the contexts* along with rural : urban...etc." (p. 102) And he makes this observation a little more intriguing by adding that "certainly as an approach to any category in dialectology it has *much less validity* than what has been attributed to it by scholars." (p. 102). Still earlier in the paper he states: "If however the orthodox Madhavas of Dharwar and Mysore share marking, identifying features, this only goes to prove that caste may be one of the *significant variables* at the rural sub-caste level." (p. 98). And on the basis of Andree Sjoberg's paper "Formal varieties of Telugu" he concludes: "caste is merely *one of the contextual axes* on which speech variation can be studied". (p. 99).

In other words, Mr Pattanayak argues that caste may be a significant variable in the study of speech variation; caste is one of the contextual axes on which speech variation can be studied; caste is a valid category in dialectology (although less valid than something he does not name); but the correlated concept of 'caste dialect' is unscientific and unnecessary. The logic of this argument is rather queer, to say the least; it shakes one's confidence in Mr Pattanayak's power of systematic and scientific thinking.

However, what worries me still more is his assertion that: "In fact, the talk about caste dialects may even have negatively reinforced caste identities and feeling." (p. 97) If I understand this assertion right its implications are rather disturbing to me. Now what Mr Pattanayak is implying is that the notion 'caste dialect' "is not only

unscientific and unnecessary, it is also positively harmful to our body politic." Ours is a secular, democratic and socialistic state; in our society castes should not exist; if they exist, they should be overlooked; if the social castes have linguistic consequences, the linguists must not talk about them for fear of "negatively reinforcing caste identities and feelings."

In other words, in the first instance, the notion of caste dialect is unscientific and unnecessary; but even if it is not, it is unsocial and harmful, for it negatively reinforces caste identities. If I read Mr Pattanayak's intention right, he is trying to cross socio-linguistics with social and moral hygiene. He is of course entitled to whatever psychological satisfaction he gets from this exercise, but it does not seem to add much to the effectiveness of his strenuous attempts to rid the discipline of socio-linguistics of its unscientific and unnecessary notions like caste dialect (and regional dialect too).

But whatever Mr. Pattanayak may say against the validity of the notion of caste dialect, in practice he generously helps himself to it in the discussion of his example(s) of what he calls the process of Sanskritization. He writes: "What may be in the consciousness of the speech communities is the notion of ranking rather than of caste." (p. 101) This is flying straight in the face of facts. It is a *fact* that the consciousness of caste is an empirically verified and verifiable pan-Indic phenomenon. It is also a *fact* that the consciousness of caste enters inalienably in the determination of ranking in society. To make ranking and caste two exclusive categories of the consciousness of the speech communities in which caste hierarchies provide institutionalized scales of values is to create a false myth. And necessary scientific concepts do not grow out of false myths.

But be that as it may, we should now turn to a "good example... of the conventional categorization of utterances." (p. 101). What follows is a truthful re-presentation of his example(s); (chart on p. 363).

This chart is quite helpful in showing the glaring gaps and the missing links in the discussion of this good example. For example in ow(g), "the columns (p) and (Q) are empty but the columns (R1) and (R2) are more than full." Mr. Pattanayak writes, "(c) It was also found out that forms like *Vaittukkoṇḍirukkiraar* and *Vaittirukkiraar* (haḷ) are used in free variation for written and formal speech". (p. 101). This is a very puzzling remark: What written and formal speech does Mr Pattanayak have in mind? Are these two forms in free variation with each other, or are they in free variation "with written and formal speech"? Whatever does that mean? Similar questions can be asked

| P | Q | | R | |
|-----|---|--------------------------------------|---|---|
| | Caste | Area | R1 | Forms R2 |
| A | Brahmin | ? | <i>Spoken</i> Veccuṇḍrikka (1) | <i>Written</i> Vaiṭṭukkoṇḍrikkirār (3) |
| B | Non-Brahmin | ? | Veccukkiṭṭirikkāri (2) | ? |
| C | Brahmin to Brahmin | Dindigul | Sie: Yatkkiṭa | ? |
| D | Brahmin to Non-Brahmin | Dindigul | Vaiccirikkānga | ? |
| E | Naidu and Brahmins (speaking to whom?) | Dindigul | ” | ? |
| F | Harijans speaking to whom?) | South Arcot | ” | ? |
| G | ? | ? | Vaiṭṭukkoṇḍirukkiraar(i) Vaiṭṭirukkiraar (hal) | Vaiṭṭukkaṇḍrikkirār |
| H | ? | regionally dis- tributed (where?) | Vaccukkiṭṭurukkaar ∞ Vaccurukkaar | ? |
| I | Brahmin | ? | Vaccuṇḍurukkaa | ? |
| All | | ? | Vaccukkiṭṭurukkaar | ? |

one other rows and columns of the chart. The row (I) is equally intriguing, the spoken form is attributed to Brahmins, but neither the region of its spread and distribution nor the caste of the person for whom or to whom it is used is clearly specified. Despite these deficiencies what is significant is that the example has been discussed in terms of the notion of caste dialect and regional dialect. And yet Mr Pattanayak maintains that the notion of caste dialect is unscientific unnecessary. I cannot understand it. It seems to me that the process of Sanskritization in the field of socio-linguistics in India cannot avoid the notions of caste dialect. Mr. Pattanayak knows it; he makes use of this knowledge in his discussions, but he denounces it. Why? It makes for a good deal of confused thinking and vague imaginings present in this paper. The example of "the conventional categorization of utterances" and its discussion by him are particularly confused and chaotic. If this is Mr. Pattanayak's response to "the nuances, complexities and the subtleties of change which cut across caste boundaries" then it is not a very inspiring and trustworthy response.

Still I agree with Mr. Pattanayak that a crude, oversimplified, and a prioristic use of the notion of caste dialect is unlikely to be adequate to the immense complexity of the linguistic situation that obtains in our society. It would be certainly unscientific to treat the the variable of caste as superordinate to, rather than coordinate with, other variables, and if this is all Mr. Pattanayak intends to say in this paper, his intention is wholly laudable. I am for his proposal to study "how the process of socialization in the caste society restricts majority of the people's access to literacy and education and thus binds them to speech codes which are 'restricted' in the Bernsteinian sense." (p. 101) This is a legitimate aspiration, and very respectable too. I also agree with him that "generalization (which) do not provide any new insight into the study of linguistic variation and miss the nuances, complexities and the subtleties change which cut across caste boundaries" (p. 98) must be rejected, and 'the operation of Sanskritization, pidginization, analogization and standardization' must not be concealed. But I fail to see how the notion of caste dialect and regional dialect come in the way of these laudable and learned and legitimate concerns of Mr. Pattanayak.

However. I should like to thank him for writing a thought provoking paper.

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In his paper on Caste and Language, Pattanayak examines the validity of caste differences in dialects and abandons the notion of caste dialects altogether which according to him is unscientific and unnecessary especially as an approach to any category in dialectology. So also the notion of regional dialects.

In his ultimate aim to prove that caste dialect is a myth the author in the course of his discussion advances arguments as the burden of proof against caste dialects, some of which are slender, untenable and contradictory. He also conveniently forgets the fundamental aims and goals of such sub-disciplines in linguistics like dialectology, sociolinguistics, bilingualism etc.

At the outset, it should be mentioned that no one can say categorically that caste is the sole variable in characterizing dialects in Indian languages and I doubt whether any linguist has ever made such a hypothesis. The studies so far held on Indian dialects especially on the social dialects reveal that among the social variables viz. caste, caste groups, occupation, education, economic status etc. caste is one of the dominant variables or perhaps the most significant variable and plays an important role in the social stratification of the Indian society.

The history of the evolution of the Indian society through the centuries is primarily on the basis of caste and it is this evolution that stratified the people of India into a social hierarchy. Even the root cause for this social order is caste rather than any other factors such as the level of education, occupation, economic status etc. which played its role only later. Thus the primary sociolinguistic division of the society is based on the concept of varṇa – the savarṇas and avarṇas i. e. the touchables and the untouchables – the former being the caretaker of purity and the latter that of impurity and pollution. Thus the two groups were socially kept aloof and this social aloofness normally reflected in their speech also. Among the touchables there existed a further social distinction between the higher castes i. e. the Brahmins and the rest of the touchable castes who are generally termed as non-Brahmins and the consequent linguistic variations reflected in their speech too. It is true that the former social set up has changed considerably during the past years but even the present society has to go a long way to get rid of completely the evils of the caste system.

Among the tenuous assumptions put forward by the author to disprove the notion of caste dialect one is that a group of speakers cannot always be identified with the caste. Though this is true to some extent, it should be noted one who knows sufficiently well all the dialects of a language can identify a group of speakers or even an individual speaker as to which caste or community he belongs to or even to which region he hails from by close observation of his linguistic behaviour. Regarding the statement that caste identities and feelings may be re-inforced by the talk about caste dialects it should be mentioned that research is not motivated by its effects on Government or on society.

Pattanayak says that like caste dialects regional dialects are also a myth. This is perhaps a challenge to traditional dialectology because it was mainly concentrating its aim on the social, stratal and regional variations and its spread. If one could prove that the notions of caste and region is unnecessary in the study of Indian dialects by a scientific study and survey of the dialects of a language then traditional dialectology as a sub-discipline of linguistics can be dispensed with or replaced by the modern sociolinguistics discipline which also has got its merits, demerits and limitations in the study and survey of dialects. But it should be noted that the author explicitly admits regional variations elsewhere when he says that "the linguistic choice and social identification of the user reveals his locational identification, family background, level of education etc" (Pattanayak. 1974 : 202). He further says that the use of a marked dialectal feature whether a lexical item, a feature of pronunciation may indicate the user's social intent, education, location, superiority etc. (ibid.) Though this is exactly true perhaps the author might have changed his stand since then.

Regarding Ramanujan's statement that region and caste are independent variables, it should be noted that though this may be largely true, as far as the Malayalam dialect situation is concerned this is not always the case. Since at times there may occur overlappings of caste and regional features. According to Subramaniam, V. I. (1974 : 655) there are twelve major regional dialect areas or more precisely isogloss areas for the Malayalam dialects spoken by the Ezhava/Tiyyas throughout Kerala beside the thirty two minor sub-dialect regions within the major areas. It is to be noted that major regional dialect areas can be marked rather precisely by the thick bundlings of isoglosses representing linguistic features at various levels of the speech but there will also occur a number of minor dialect areas within each major areas demarcated by comparatively

thin bundlings of isoglosses since theoretically there cannot be any region without an isogloss.

Another point to be noted is that sometimes there will be overlappings of caste or communal features as well as regional features. For instance, in the Muslim dialect of Malayalam there is an initial v/b alternation which is a characteristic feature of this dialect. For ex. varuu > v/barin 'come' vellam > v/bellam, 'water' v/baappa 'father' etc. This feature is a marker trait of the Muslim speech of Malayalam throughout Kerala and that in the Laccadive islands irrespective of region when compared to the speech of the other castes Tiyyas, Nairs, Harijans etc. But in North Malabar region especially in Cannanore District this feature v/b alternation is found in the other castes also including the Muslim of that area. Whereas except in North Malabar this feature is not found in the other castes. This does not subscribe that regional and communal features cannot be marked but only shows that in some points both caste and regional features may co-exist or overlap and in other regions it will become distinct showing the intricate, complex and overlapping nature of linguistic variations. Similarly the word final -n/-m alternation is a characteristic feature of the Muslim dialect of Ernad and Laccadives whereas this is not observed in any other dialects. ex. deyvan/deyvam 'God' kaṭan/kaṭam 'debt', neeran/neeram 'time'. This is a caste bounded regional variation of the Muslim dialect.

One of the accusations made by the author against caste and regional dialects is that it is untenable to isolate and give categorical labels to these dialects as such because it is untrue to talk of the Brahmins, Non-Brahmins, or Harijans dialects as that of the Southern, Northern dialects etc mainly because there are some overlappings of features of one over the other. This is perhaps due to the notion that a caste group is a completely homogenous group and the speech variety so designated is both a structural and cultural isolate. But it should be noted that a caste group spread across the breadth and length of a territory speaking different varieties of the same languages or spread to other parts of the territory speaking varieties of different languages can in no way be thought of to possess the same cultural and linguistic features since no group of speakers spread across regions speaking different varieties of a language can ever form a completely homogenous group. The cultural and linguistic behaviour of the same group shows considerable differences with reference to region. For instance, compare the northern dialects of Malayalam of any caste with that of the southern region. This is supported by Pattanayak's own

statement that as all the Brahmins speaking the same language do not form an endogamous group, one endogamous group spread across in different regions do not speak one variety of language. This in a way suggests indirectly the existence of regional variation in speech. To call a variety of speech either as Brahmin, Harijan, Muslim dialects or as Northern, Southern, Eastern dialects etc. is a matter of convenience in the Indian social set up and the variety of speech so designated can equally be notated as D_1 , D_2 , D_3 or as A, B, C, etc however, the differences which are due to the social factors such as caste, community, education etc. will emerge out automatically though whatever nomenclature one may give to these varieties of speech. Actually, the dialectologist is more interested in the dialectal variations that may arise due to various factors and the correlation of linguistic features to non linguistic features rather than in the nomenclature. However, another point to be noted is that if we have to disregard one type of labelling we have to resort to another type since as mentioned above nomenclature is a convenient way of distinguishing one from the other which essentially shows difference and it is a must. As regards the dialects of a language instead of representing them with reference to caste, region or strata could it be possible to re-label them satisfactorily in the light of such contexts, as informal : formal, educated : uneducated etc which would take care of all the linguistic and social correlates of speech variations devoid of the problems encountered on the other hand by the so called traditional labellings based on caste, strata and region?

When the author says that linguistic variations are not correlated with individuals nor with caste groups but with a number of social contexts etc. he is only partially true. Linguistic variations and manifestations are due to various factors such as psychological that is pertaining to the individual, his age, caste, religion, location, occupation, education, economic status, family background etc. Linguistic variations are also correlated with the attitude of the speakers such as his emotional involvement and language loyalty, functions of language in society, role-relationship of the speaker-hearer, the topic of discussion, the inter-locutors and such other factors operating simultaneously or alternatively. Thus linguistic variations are conditioned by multidimensional factors including the individual representing his caste group in the larger social context and not by the abstract social contexts devoid of the individual and his community, class, or region. The individual's role in the selection and usage of particular linguistic forms or in other words the psychological correlates of linguistic variations can best be understood in diglossic and multiglossic

situations where the interplay of more than one style of speech takes place simultaneously or alternatively.

Since speech variations are due to multiple factors there is no single way or a foolproof method that could bring out a complete, comprehensive and satisfactory study of all the complexities, subtleties of speech variation. It can and it ought to be studied by different ways and means. Since dialect variations are characterized by a number of variables operating simultaneously it seems better to study one variable at a time keeping all other variables constant rather than taking into account a number of variables at the sametime and reaching at conclusions that leads to nowhere. For instance, if one has to study the dialects of Malayalam spoken throughout Kerala there are several ways of doing it. First of all one should be clear about the specific aims and goals and also be aware of the resources. If the aim is to study the differences and spread of regional and caste differences in dialects and the demarcation of dialect areas based on caste and region it is better to take one caste spread throughout Kerala at a time and study the differences of the speech of this caste across region keeping all other variables like level of education, age, occupation etc. constant. This would bring out the caste differences in relation to geographical region. This type of study can be extended to other caste groups and after completion of each caste with region it is possible to state reasonably well the specific caste traits and the regional markers and also whether the regional dialect areas based on castes are tallying, in which areas there are overlappings etc. On the contrary, if one neglects caste and region and study and survey the dialects in the social contexts in such oppositions as educated : uneducated, urban : rural, formality : informality, older group : younger group and with reference to register, style etc at the same time what subtleties of changes and features will be brought out or at what specific and dependable conclusions one would reach is something to be seen rather than to predict. Is a time bound, scientific, useful, practical and dependable study possible in such a situation ?

When we examine the dialects of a language it becomes clear that they are in close parallel to the individual languages of a proto-language. For instance, if we take Tamil, Malayalam, Koṭa, Toḍa, Kannaḍa, Koḍagu, Tuḷu etc. we know that they are separate languages of the SDr. sub-family. All these languages share a number of features with the PSDr. and at the same time bear characteristic features of their own. On a quantitative basis perhaps the individual characteristic features will be found less than the collective shared features of PSDr. On this score it cannot be stated that Tamil, Malayalam, Kannada etc.

cannot be labelled as separate languages since what is found in Tamil is also found in Malayalam, Kannada, Tulu, and vice versa. Similarly, a few lexical items found in the NB Tamil speech if found in the Tulu B. speech or two different suffixes of the same meaning used by a single community in two different areas like the *Paḍaiyāchi* of Tamilnadu, it cannot be said that there are neither caste nor regional dialects. As far as the dialects of a language are concerned there will be more shared features and similarities between the dialects when compared to that in different languages of the same protolanguage. It is the specific innovations of linguistic features in the individual languages in the context of shared retentions of the members of the family that give a criteria for sub-grouping and consequently assigning distinct status to the languages of a family as Tamil, Malayalam, Kota, Toda, Kannada, Kodagu etc. This is exactly the case with the various dialects of a language.

Regarding the author's statement that the formal and informal styles are not the preserves of the Brahmin dialect and that they are to be associated with education rather than with caste, it should be mentioned that it is not a particular style whereas the specific features found in a style that is identified as the caste traits. Every speech community uses different styles such as formal or polite, informal or colloquial, vulgar or slang according to different situations besides professional styles related to occupation and baby-talk styles used to talk with babies. All these styles can be differentiated on the basis of particular phonetic or phonological changes, selected lexical items, types of syntactic constructions etc. It is not fair to speak of informal or formal spoken Malayalam without reference to any particular social class and location since they are not the same for all castes in all regions. It is the informal, uneducated, rural speech of a caste group that often preserves the archaic forms as well as the characteristic dialectal features of the community and hence it is this variety that is generally taken up for study and survey in dialectology.

Also, one has to disagree with the author when he says that no caste markers are to be found in the standard literary language and in the formal spoken language which is close to it. It should be noted that standardization is not something concrete whereas it is a matter of degree and a shifting process. As far as Malayalam is concerned the standard language also varies according to regions. So also the formal spoken language. The formal spoken language of Trivandrum is not the same as that in Trichur or in Cannanore. They differ considerably. It seems strange to look for the marker traits where it is not found and say that no markers occur instead of looking for it at the proper place. If caste markers are to be traced out it is the

uneducated and unsophisticated speech of the caste group that is to be examined rather than the so called standard literary language, the unsophisticated speech of the elites, the formal style used for a professional discussion. In the author's own words (Pattanayak. 1974 : 201) in the stratified Indian society the question of authenticity of language or that of 'standard' is a complex one and that there is no such thing as 'The Standard Form' which is valid for all purposes. Moreover, if we take informal speech without reference to caste, for instance, we may get such forms as 'acchan, appan, appaccan, v/baappa-'father' in which case it may force one to think that these forms are used by all castes in their informal speech whereas in reality it is not the case; each form is used by particular castes. This and many other types of caste specifics will be concealed by the study of dialects purely on the basis of such oppositions as informal : formal, educated : uneducated etc.

It should be noted that the dialect studies and surveys conducted so far in Kerala in the Malayalam language situation especially with references to caste and region show that all caste differences cannot be explained by a two or three fold division such as Brahmin : Non-Brahmin or Brahmin : Non-Brahmin : Harijan etc. Each community, caste and even sub-castes within the caste groups have to be studied independently and exhaustively. For instance, the Non-Brahmin include such castes as Nairs, Ezhavas, Harijans and the Harijans again comprise of such sub-castes as the Pulayas and Parayas. We cannot say that all these castes represent the same dialectal features. Infact, we have seen that there is considerable difference among the dialects of these castes.

It is not true to say that caste markers or regional markers occur only in a few lexical items and in the resultant phonology. Even by the phonological features found in the cognates one can distinguish the various languages of a protolanguage. If so, the dialects of a language can also equally be distinguished on this basis. Caste and communal traits occur mainly in the kinship terms, cultural vocabulary items besides in the phonological level, in gramatical category and in specific phrase formations. For instance, in the Malayalam speech of the PaRaya sub-caste of the Harijan community living in Hosdurg there are two peculiar and systematic occurrence of the present tense markers -- anRa and uṇṭa -- for ex. kottanRa 'chops' iṭuṇṭa 'places' whereas these markers are not at all found in any other caste dialects so far investigated. The present tense markers in other dialects of Malayalam are -uṇnu, -uṇu etc. for ex. kottuṇnu 'chops' iṭuṇu 'places' etc. Similarly the Muslim dialect of Laccadive islands shows the peculiar present tense marker -aṇṭa ex. bayāṇṭa 'come' pookaṇṭa 'goes' PaRayāṇṭa 'says'.

This is a characteristic marker of this dialect whereas the above marker occurring in other dialects of Malayalam has a negative meaning. ex. varaṇṭa 'don't come', pookaṇṭa 'don't go', PaRayanṭa 'don't say'.

A few further characteristic features of the PaRaya dialect may be noted.

1. A regular dropping of almost all word initial consonants like p b t c k h v n is a characteristic feature of this dialect whereas only the dropping of h in such words as haaram > aaram 'garland' haajaru > aajaru 'presence' is noted in the other dialects too viz. Ezhava/Tiyyas, Nairs and not any of the other consonants in this position.

ex: peeṭi > eeṭi 'fear', beṭakkaaya > eṭakkaaya 'bad', toolu > oolu 'skin', ceecci < eecci 'elder sister', kaaRRu > aaRRu 'wind', veralu > eralu 'finger', neññu > iññu 'breast'.

2. occurrence of nasalized vowels is noted whereas it is not found in other dialects.

ex. iiṭu 'face', iinu 'fish', ðle 'frog', ūttē 'father's mother; uurā groin'.

3. the occurrence of pronouns like atoon 'he', ataḷu 'she' aanu 'I', The corresponding forms for these pronouns in the other dialects are avan/oon, avaḷu/ooḷu and ñaan.

4. Peculiar lexical items like iippaḷu 'below', paymu 'blouse', veere 'blood', oḷappē 'flesh', kaakkan 'brother' ilḷatti 'bird'.

5. Characteristic fused phrase units like aañceRiyatu 'male-young', eñceRiyatu 'female-young', aampaṭṭaayi 'male dog', pampattaayi 'female dog' etc. These features distinguish the paRaya dialects of Malayalam spoken in Kerala. Similarly a number of features peculiar to and found only with the Muslims, the Pulayas and other castes can be cited. For instance, the presence of an interdental velarized lateral phoneme /L/ and a labiodental fricative /f/ in such words as LohaRu 'noon prayer', avLu 'water tank in a mosque', aLLa 'God', vayaLu 'a religious discourse' etc., fattuva 'conqueror', Kaafar 'a non-believer', saafu 'neatness' etc are features found only with the Muslim speech. If these linguistic features and items are not communal or caste correlates what else can they be? Perhaps, it could be said that they are borrowals from Arabic, Urdu etc. But specific features occur in the native system as well. It should be noted that finding out the causes for the origin and spread of the caste correlates of linguistic variations is no proof for its denial as against the author's statement that the caste traits, if any are cultivated

and its use gets restricted only to the family circle. Actually in dialectology it is the existing, observable differences in the speech varieties that is correlated with the social factors, rather than the causes for the differences.

As far as the regional variations are concerned extreme differences are observed in the various levels of linguistic structure including the intonation patterns of the speech of the same caste group or different groups living in two different areas, for instance, the Malayalam speech of any group of the northern region vs. that of the southern region shows considerable differences which can only be attributed to the region since these features are almost uniform for any group of the respective regions. Regarding the lexical items there are many with purely regional connotations, the same forms in two areas have two different meanings and also there are forms which are taboos in one region is not so in another region. Similarly certain verbs and nouns have co-occurrence restrictions at regions. If one could prove that these are neither caste traits nor regional traits but can be accounted satisfactorily in some other ways then the notions of caste and regional dialects can be dispensed with.

The author is right when he says that the dimensions of regional and social variations in the context of formality : informality, educated uneducated etc have not been differentiated sufficiently to warrant the concept of caste dialects but this is not a criterion to say which is true or untrue etc. Strictly speaking according to the author what labellings one could give at present to language and dialects is simply the written language and the spoken language.

In short, the present paper does not seem to contribute any new insight to the dialectologists. It is based on the assumption that caste, region and individuals have nothing to do with dialect differences and that linguistic variations are not correlated with any of these factors but with a number of other social contexts. The author sees only one side of the problem and it is not free from bias. The statements that it is more interesting to study or more important to study such variations etc show that it is only subjective expressions of personal taste rather than objective assessments based on scientific methods of analysis or reason. However, the topic deserves the attention of scholars who are interested in the field of dialectology and sociolinguistics.

NOTE

The examples cited in this discussion for the Muslim dialect of Laccadives are from A. P. Andrewskutty and those of Ernad from

G. K. Panikkar and those for all other dialects from the published and unpublished materials of the dialect survey unit of the Department of Linguistics, University of Kerala.

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I read with keen interest Dr. Pattanayak's Paper 'Caste and Language' which discusses the validity of the phenomenon of caste as the sole variable characterising dialects in India, in the IJDL Vol. 4 No. 1. His paper rejects that hypothesis of caste dialect. Pattanayak points out 'when a person opens his mouth he identifies himself with some group or other. Thus language is a powerful marker trait of group identity. However it would be tenuous assumption that this group can always be identified with a caste'.

Starting from 1910, when Jules Bloch talks about the concept of "Caste Dialects", in Indian Linguistic area (see his paper 'castes at dialects in TAmoul', *Memoires de la Societe de Linguistique* 16: 1-30), quite a number of scholars including Susan S. Bean (1974, in her paper 'Linguistic Variation and the caste system in South Asia,' (Indian Linguistics, Vol. 35, No. 4.) have been discussing about the concept of social dialects/caste dialects in detail. There is a difference between the social dialects of Western countries and that of Indian linguistic area. The caste system prevalent in the Indian sub-continent illustrates the most rigid and detailed form of stratification in a large heterogeneous society. No other society in the world has developed so complex a system of stratification not one covering so large and diverse a population. So there is much of difference in the stratification of 'social class' of the West and 'Caste system' of India (Reissman, 1967: 244-45). The same type of stratification could be found among the speech varieties of different Indian languages also.

It is not true to say that there are no social dialects exclusively associated with the caste system of the Hindu society. To illustrate this one can sight evidences from the Tamil situation. Social identification through language is quite normal in the Brahmin speech of Tamil. The following linguistic features are attested exclusively in all Brahmin speech varieties irrespective of the region where they live.

1. Grammatical level :

| | | | |
|----------------------------------|-----------|--------------|------------------------------|
| Past tense | -s- | vassa : n | 'scolded-he' |
| Third Person | -va : (l) | ava : (l) | 'they (N. neu.)' |
| | -a : (l) | varuva : (l) | 'will come-they (N. neu)' |
| First Person Sg. oblique base | ne :- | ne : kku | 'to me' |

| | | | |
|--------------------|-----------|----------------|---------------------|
| Second Person | no :- | no : kku | 'to you' (sg.) |
| Sg. oblique base | | | |
| Ordinal suffix | -a : matu | na : la : matu | 'fourth' |
| Second Person Hon. | -e : l | vante : l | 'you (hon. Sg./Pl.) |
| Sg. and Pl. suffix | | | Came' |
| Temporal suffix | -acce | ke : kkaracce | 'when asking' |
| | -atte | | |

2. Syntactical level :

| | | |
|-------|---|-------------------------|
| avan | vantuṭṭirunta : n | 'he was coming' |
| atu | ne : kku ve : ṇam | 'I need it' |
| ava : | vantuṭṭuva : | 'they will come' (def.) |
| avan | { va:nkiṇṭuṭṭuva:n } { va:nkinuṭṭuva:n } | 'he will buy' (refl.) |

Lexical Items :

/attimpe:r/ 'brother-in-law', /attanka:/ 'sister-in-law',
 /amma:nci/ 'aunt's son', /a:ttukka:ri/ 'wife', /a:ttukka:rar/
 'husband', /tu:rttam/ /tu:ttam/ 'water' /ganga:sna:nam/ 'bath'
 /manni/ 'elder brother's wife', /maruma:n/ 'son-in-law'
 ma:ṭṭuppon/ 'daughter-in-law' /vayyi/ 'scold' etc.

Of course one has to admit that there are certain regional usages which every speaker has to follow in order to associate and identify himself with the region concerned. Similar instances of social identification is also possible in the Kannada situation too; where *Gowda Kannada* is spoken by a particular caste in an area within the society. Similarly one can extend this concept of social identification through language to some other speech variety also on the basis of systematic sociolinguistic survey involving different castes and regions. As Pattanayak has pointed out there is no doubt various social parameters like age, sex, literacy level, social class, settlement area etc. which play an important role in the social differentiation of speech. But it is only caste which is the major factor of distinction.

As Pattanayak has pointed out that in the speech of Paḍayacci Community there are certain variations from region to region. His only illustration of purposive case which has two alternants /-kka:ka/ and /-kko:caram/, the first one, a native feature which is common to all the speech varieties and the second, which is attested in the northern speech variety of Tamil is a borrowing from Telugu. It is a well known fact Telugu had its influence on Tamil (particularly in this region), beginning from the days of old Madras Presidency.

So it is clear that this is only a regional feature and any society of that region can easily acquire the same. So one can conclude that there is uniformity among the social dialects barring certain regional variants. This is quite applicable to the Brahmin speech variety also. For example in South Arcot District there are certain usages like *emḷatu* 'eighty' /maḷḷa:ṭṭe/ 'ground nut', /tiruṣa:/ 'festival' /amma:m/ 'that much' etc. which are found to occur in the lexical usage of all castes. So this does not mean that one cannot identify caste speech.

Some of the recent studies on the social differentiation of Tamil speech variety show a number of parameters.¹ One can fully agree with Pattanayak that apart from caste there are other variables that distinguishes speech. If the term 'caste dialect' is not acceptable or suitable, one can prefer to use the more general term social dialect. Again in the Indian situation social dialect means only caste dialect in a broader sense. Pattanayak argues in his paper that the present thesis regarding caste dialects can be extended to categorical notions like regional dialects also. This makes one to raise basic questions such as 'What is a dialect?', How a dialect can be identified? etc. These questions have to be answered by a socio-linguist or dialectologist before he proceeds to analyse any speech variety. Pattanayak has not made clear his concept of dialect or speech variety. However his observation that 'the study of linguistic variation in different social context, will be more interesting' is quite agreeable in the present day sociolinguistic frame work.

Pattanayak's illustrations of Brahmin and non-Brahmin speech varieties on page 101, seem to be uniform among the Brahmin speech irrespective of region. (For details see my examples mentioned above.) Similarly the same is the case with the non-Brahmin speech also. If at all there is any variation it may be due to the influence of regional usages, which are quite normal and acceptable in the present day social set up.

On the whole one cannot omit the notion *caste dialect* by saying it as a meaningless 'nomenclature', simply because some of the linguistic materials show certain overlappings in their occurrences among the Br., N. Br. and Ha. speech varieties of Tamil. It would be quite useful and interesting to make a systematic sociolinguistic survey of Tamil dialects before making any categorical statement regarding caste dialects or regional dialects. Then only one can clearly demarcate the distinctions among the speech varieties of different social castes as well as with in the social caste.

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Discussions to continue in the next issue

Ed.

REVIEWS

A PRAKRIT READER

[A Linguistic Introduction Based on Selections from Hāla's *Sattasaī*] H. S. Ananthanarayana : Central Institute of Languages, Mysore, 1973, pp. x; 99, Rs. 6/-

M. A. Mehandale

Poona

As the sub-title of the book states this is a modest attempt to introduce the reader to a dialect of Middle Indo-Aryan as reflected in, the *Sattasaī* attributed to Hāla. The author, first, gives a clear picture of the phonology and the morphology of the dialect as seen from the verses. He treats phonology both descriptively and historically, but makes no historical statements with reference to morphology. The description of the dialect is followed by a selection of some hundred verses and a useful Glossary. In the text of the verses, detailed notes on individual words are given to help the reader to understand the text. But it is not clear why the author has chosen not to translate the verses into English. On the whole the *Reader* will be found very useful by the students of Prakrit for whom it is intended.

A few comments may follow :

1) p. 6: The remark "The plosives occur medially as geminates and with a nasal" is misleading. It is likely to give the impression that the plosives, otherwise, do not occur medially. How then would one account for the medial plosives in words like *koḍaa*, *kāpurisa* etc. ?

2) p. 10: The author could have pointed out specifically that as geminates, in the medial position only the semi-vowels *l* and *v* occur, but not *r*.

3. p. 10 : The author looks upon *mv* in *cumvai* as an instance of *v* with a nasal; but he considers *mh* in *gimha* as an example of a

cluster. He should have explained the reasons for the two different treatments.

4) In historical phonology one misses a statement to the effect that intervocalic stops generally tend to disappear as in *pāa, pai* etc., and in descriptive phonology a statement to say that two vowels may occur side by side without coalescence.

5) In morphology one expects to have a clear statement about the loss of the dative.

6) pp. 28-29 : The author notes *ejjā* as an optative marker and then, among the terminations, he gives zero term for 1st sg. and for 3rd sg. and pl. However, in the paradigm there, three forms are shown with a final short vowel *-a* (*hāpejja*) for which no statement is made.

7) Certain words are not taken care of in the notes which occur after the text of the verses. Thus the words *pamkaa*, in verse 1, *tanti* in verse 2, *dūnia* in verse 3, *tog-* (*tog-gaa* > *tvad-gata*) in verse 5 are not explained. The last item does not occur in the Glossary either. In verse 5, the use of the particle *mā* has not been explained.

8) The expression *kāmassa tattatamtīm kuṇamti* (p. 35) is a difficult one. The commentator explains *tattatamtīm* as *tattvacintām*, but it is difficult to relate *tamtī* with *cintā*. It is, however, true that the word *tamtī* occurs twice in the *Sattasaī* (1.51, 3.73) where it means *cintā* 'anxiety, thought'. Dr. Ananthanarayana suggests to derive *tamtī* from *tantrī* (Glossary under *tattatamtīm*) but does not indicate how it can mean 'secrets of love'. One possibility could be to look upon *tamtī* to have the same meaning as *tantra*. The expression then means 'those who formulate the doctrine about the real state of love'.

9) The word *pesio* in verse 101 (p. 67) has not been explained. In the Glossary it is derived from *preṣita* 'sent'. The derivation is possible, but not quite appropriate in the context. The explanation *praveṣita* 'made to enter' would be more to the point. The first line of the verse means 'pride which was made to enter my heart by my friends having some how found on opening'.

As a matter of information it may be added that the *Sattasaī* has been published with Marathi translation and notes by S. A. Jogalekar (1956) and with English translation by Radhagovinda Basak (1971.)

READINGS FOR APPLIED LINGUISTICS,

edited by J. P. B. Allen & S. Pit Corder (OUP, London,
1973, 284 + X Pages)

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The Edinburgh Course in Applied Linguistics is an integrated series of four textbooks for students of Applied Linguistics prepared by members of the Department of Linguistics in the University of Edinburgh. The book under review is the first volume of the Edinburgh Course. It contains a set of readings, the majority of which have been written in the last 15 years. It has seven sections dealing with a variety of topics: various views of language, functions of language, varieties of language, language as a symbolic system, linguistics and the study of language, linguistics as a scientific study, and linguistics and language teaching. Sections 1-IV present a broad range of views about the way language can be approached as an object of scientific investigation. Sections V-VI concentrate on presenting a number of alternative and sometimes sharply conflicting accounts of the scope, methods and philosophical foundations of the approach to the study of language known generally as 'structural linguistics'. Section VII offers a variety of accounts of the relation of theory to application.

There are five papers in the first section. They seek to answer in their own ways one of the basic questions: Is language knowledge, behaviour, skill, an event or an object? According to Hermann Paul social 'intercourse' is the sole creator of speech in the individual. F. de Saussure argues that language [*langue*] should not be confused with human speech [*language*]. It is both a social product of the faculty of speech and a collection of necessary conventions that have been adopted by a social body to permit individuals to exercise that faculty. One of the key concepts in the technique of Firth is the concept of the context of situation. It is a group of related categories at a different level from grammatical categories but rather of the same

abstract nature. According to Skinner what happens when a man speaks or responds to speech is clearly a question about human behaviour and hence a question to be answered with the concepts and techniques of psychology as an experimental science of behaviour. Chomsky, on the other hand, points out that the greatest defect of classical philosophy of mind, both rationalist and empiricist, seems to be its unquestioned assumption that the properties and content of the mind are accessible to introspection. The essential weakness in the structuralist and behaviourist approaches to the study of language and mind is the faith in the shallowness of explanations. It is taken for granted without argument or evidence that a language is a 'habit structure' or a network of associative connexions. The grammar proposed by Chomsky is an explanatory theory; it suggests an explanation for the fact that a speaker of the language in question will perceive, interpret, form, or use an utterance in certain ways and not in other ways. In fact, the study of universal grammar is a study of the nature of human intellectual capacities. Linguistics for him is the subfield of psychology that deals with these aspects of mind. Language is a complex system of communication, but language is not the only means of communication. Abercrombie shows that we also communicate voluntarily by means of gesture, posture, facial expression and tones of voice. The term *paralanguage* is increasingly commonly used to refer to non-verbal communicating activities which accompany verbal behaviour in conversation. What is to be regarded as linguistic and what as paralinguistic depends not on the nature of what is communicated, but on how it is communicated whether by formal systems and structures, in which case it is linguistic, or not, in which case it is paralinguistic. Austin suggests that there are many sentences of a declarative form which are 'acts' which are typically performed through speech. He proposes a number of classes of speech acts according to their illocutionary force: verdictives, exercitives, commissives, behabitives, and expositives. For Jakobson language represents a network of six different but mutually defining functions: referential, emotive, poetic, conative, phatic, and metalingual. Halliday examines the concept of 'functions' in the context of language teaching. His principal concern is with the teaching of the mother tongue and the dangers inherent in a teacher's inadequate conception of the range of functions of language. He is of the opinion that in an educational context the problem for linguistics is to elaborate some account of language that is relevant to the work of the English teacher. His conception of language includes the instrumental, the regulatory, the personal, the heuristic, the interactional, the imaginative and the representational models. Each of these is

the child's interpretation of a function of language with which he is familiar.

The manifestations of language appear to be almost infinitely variable. Ferguson and Gumperz investigate the concepts of social group membership and mutual intelligibility as criteria for classifying language varieties, whilst Crystal and Leech are most concerned with the importance of the social role, status and psychological intentions of the speaker as a means for reducing the infinite variety in the manifestations of language to some sort of order. A variety is seen as a unique configuration of linguistic features. Ferguson and Gumpers define a variety as "any body of human speech patterns which is sufficiently homogeneous to be analysed by available techniques of synchronic description and which has a sufficiently large repertory of elements and their arrangements or processes with broad enough semantic scope to function in all contexts of communication."

The papers in section four are concerned with the problem of establishing the nature of the relation between the structure of a language as a symbolic system and the mental functions and cognitive structures of its users. The linguistic relativity theory has received a number of different formulations. Whorf says that 'there is a precious dependence of all we know upon linguistic tools which themselves are largely unknown or unnoticed'. Fishman criticizes Whorf's concept of linguistic relativity and says that the structure of a language does not determine what can or cannot be thought, but merely makes the expression of certain ideas more or less difficult. Theories of linguistic relativity have implications for language teaching. 'At one extreme the learning of a new language would involve the acquisition of a more or less completely new conceptual system and mode of thought, if it were possible, and there could be no such thing as adequate translation between many languages.' Carroll holds that an individual learning a second language must be taught to observe and codify experience as nearly as possible in the same way as native speakers of that language.

Section five is about linguistics and the study of language. Allen says that linguistics is a creative and not an observational activity. It is peculiar amongst sciences in standing astride two streams of phenomena – on one side the phonic material which constitutes speech, and on the other the practical situations in which speech operates. Lyons explicitly distinguishes linguistics as an independent theoretical study having as its aim the construction of a general theory for the description of languages under the title 'microlinguistics', from

the psychological, socio-logical, neurological and philosophical studies of language, which he calls 'macrolinguistics'. The grammar of a language is a formalized, deductive system which 'generates' sentences as valid 'theorems' of the particular language-system. The goal of linguistics, according to Yngve, should be an understanding of how people use language to communicate.

In section six we find a variety of approaches to linguistics as the scientific study of language. These approaches assign different importance to the processes of observation, prediction and verification and imply different attitudes to data. According to Joos and Bloomfield the linguist's task is to discover the systems underlying the data and make generalizations about them. Hockett too says that the task of the structural linguist, as a scientist, is essentially one of classification *but* the purpose is not simply to account for all the utterances which comprise his corpus at a given time but to predict what other utterances might be produced in that language. Chomsky, on the other hand, treats linguistics as a branch of cognitive psychology. The focus of interest shifts from language as organized data to the organizing power capable of producing that data. Theories of language should concern themselves with both substantive and formal universals.

Section seven is concerned with linguistics in language teaching. Theoretical linguistics, it has already been seen, has important but strictly limited aims in this context. Halliday, Rosenbaum and Mackey discuss this central question of validity and applicability. Chomsky insists that it is the language teacher 'who must validate or refute any specific proposals' for the application of linguistics. For Cordier and Saporta the principal value of linguistics lies in its application to the preparation of teaching materials, the making of pedagogic grammars.

It is evident that the papers outlined above do not constitute 'readings in applied linguistics' but are designed to be 'readings for applied linguistics'. One would naturally like to ask a few related questions: What are the distinctive features of these papers which make them specially suitable for our work in the field of applied linguistics? Can't these papers be put into a book of 'readings in Linguistics'? Doesn't the Edinburgh Course in Applied Linguistics presuppose a good course in general linguistics and phonetics? Considering the fact that the editors have assumed that the reader already possesses or is concurrently acquiring a knowledge of linguistic, psycholinguistic and sociolinguistic theory, one finds it all the more

difficult to find a proper place for these papers on a course in applied linguistics. A course in applied linguistics is a course in the application (potential and actual) of the findings of linguists in a variety of areas such as language teaching, translation and interpretation speech therapy, communication engineering and so on. The real issue here is: How much of linguistics can go into these areas and in what form? The editors of this course maintain that "the Applied Linguist is a 'consumer' of theories in that he attempts to make use of the explanations they provide about the nature of language in order to plan and execute language teaching programmes. He is not a creator of theories - that is the role of the theoretician." This, we feel is the weakest aspect of the entire thinking that has gone into this course. Every applied linguist in the process of using and fusing theories creates his own theory (or theories) of applied linguistics. Applied linguists are not (and should not be) blind consumers of theories. They are discriminating consumers. *Every teacher uses his own intuition, experience and training to select stage, and grade his material. Every teacher has his own way of reducing 'tokens' to 'types' (Verma, p. 19). He draws on all the disciplines related to his work. but his 'derived' ideas and insights acquire new values in the matrix of a set of new theories: theories of applied linguistics based on classroom interactions. "Within the limits of his discipline the language teacher can be his own theorist if he has eyes in his head and has the instinct to theorize that he was born with - as surely as he was born with an instinct for language" (Bolinger, p. 36).

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DIALECT SURVEY OF MALAYALAM (Ezhava-Tiyya)

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Kurukshetra

“*Dialect Survey of Malayalam*,” an investigation of the dialect of Malayalam as spoken by a single caste through out Kerala, is a “new and systematic venture in the field of dialectology in India since Grierson (Introduction : V)”. We shall examine this claim further on.

The statement of the problem, method and technique and some of the results of the survey are presented in twelve chapters covering 690 pages besides an Introduction, an Appendix reproducing the questionnaire and 15 maps. An index is a desideratum.

Introduction describes just in outline the dialect surveys attempted so far in various countries including India. It is pointed out here that nature and contents of a survey are determined by the aims and objects it purports to realize. And these are various.

Chapter I describes details of the present project and sanction of financial assistance from the University Grants Commission. This incidentally illustrates under what strains and constraints linguistic scientists in the country are working at present. At one stage of the execution of the project, the Principal Investigator had to promise compensation to the University from his personal salary in case the funding agency withheld further assistance. There is earnestness and impatience to do something on the one hand, and indifference and lassitude on the other. What a pity !

The earlier work on the dialect of *Pulaya* community formed basis of defining the objects of the present project. These were to demarcate precisely the boundaries of six dialects of Malayalam (determined earlier) and prepare outline grammars of each (3). For linguistic analysis “structural” approach was opted.

Second Chapter furnishes details of getting prepared. Research Assistants who were to work in the field were selected and given intensive training in phonetics and technique of linguistic analysis. It is gratifying to learn that the organizers of the survey took their work *very* seriously and went into the minutest details of its organization and execution. Due care is taken in the preparation of the questionnaire, selection of localities and informants. Only rural settlements were picked up for the good reason that these represented stable and more homogenous speech communities than urban ones. Besides lexical items, running texts were also collected. The data was taken down in phonetic script and also recorded on magnetic tapes. What amount of efforts and care went into finalizing the questionnaire is worth recording here.

After the first field trip which took nearly *three* months the Research Assistants returned to the headquarters i. e. the Department of Linguistics, Kerala University, Trivandrum. The word lists were reviewed critically there and revised. In the next trip a picture album was supplied to elicit items that were considered ambiguous on various scores.

The second field trip was again of about *three* months duration (March 20, 1967 to second week of June, 1967). Errors detected in the first trip were corrected. At the end of the trip the workers returned to Trivandrum where they worked on the material for about *nine* months. The questionnaire was again revised and finalized in the light of their experience in the field in executing it. It was again tested early in March, 1968 before taking final plunge. The output of the final trip is very impressive. The total number of items collected was 2,39,460 and the number of maps drawn was 260 (and a few more subsidiary ones). Phonological and grammatical studies to be prepared later will be based on these data.

Details of word, phrase and sentence patterns are provided in the *next chapter*. The preliminary list of 2600 items was successively revised as stated above and improved in the light of the experience gained in each trip. (The list is not given separately. It is included in the dictionary in chapter IV). It was found out that several of the items were not understood at all or were understood wrongly. Some of these were ambiguous while others showed free variation. An investigator has to be prepared for that particularly when a survey of vast area is being attempted. Concepts taken for granted as universal are not necessarily so. While eliciting certain items of food which we thought to be prevalent all over the state of Haryana, we were pleasantly surprised to learn from the informants that these were either not used at all by them or their connotation was different.

Chapter IV is a dictionary of 3001 items which incorporates 26,00 items of the preliminary list. It is claimed that this list is adequate enough to provide all the information necessary to write up the outlines of phonology and grammar of all the *six* dialects.

Chapter V discusses nature and formulation of a questionnaire in general. It is all too clear that a really useful questionnaire is possible only when the investigator has acquired familiarity with the culture of the linguistic community. The purpose of the survey will further help him make it precise and definite. How it is to be operated is a practical question and may be left to the commonsense and ingenuity of the field worker. Perhaps no detailed guide-lines can be laid down.

Chapter VI summarizes some of the findings of the survey. These relate to phonological, morphological and incidentally to lexical differences between six dialects. The author observes: "All these will illustrate and confirm that the differences between dialects were unconditioned, varied and complex (310)". A little further on the same page he continues to say that "All these will illustrate and confirm that the differences between dialects will be numerous and unpredictably varied". We however do not concur with these observations. The dialects belong to the same language family spoken in geographically contiguous areas and are developed and functioning in the same cultural orbit. External environs and influences and pressures have been almost identical. Linguistic theory will thus expect some sort of systematic correspondences between them. The various speech varieties form a sort of spectrum. It may be perfectly legitimate that differences between two varieties at extremes may be quite pronounced. It may also happen that a choice is available in the proto stage. In such a case one variety may opt for one form rather than the other. Such differences as *varum* and *varnam* (311) illustrate this phenomenon. In fact selection of items for the questionnaire seems to have been based on the assumption of regularity of correspondence in cognate items. (See selection of differences for questionnaire, p. 312).

In Chapter VII is presented an analysis of the questionnaire which has two parts, part one containing 255 items of the type "What is the name you use for ...", and second, only five homonymous units with their meanings listed against each. Differences in the dialects are presented in terms of the forms of one of these. For instance -s- of one variety corresponds with -ʃ- of another and so on (322-23). The details of these differences are given here under various type of replacements in the order of phonemic, lexical, morphophonemic and phonetic features (324-25). This is a mechanical cataloguing

of items. Statements in terms of underlying processes would have been more insightful. For instance items 22-25 (322) are all illustrations of assimilation.

Chapter VIII lays emphasis on the importance of maps and their various types for a dialect survey. In all 282 maps have been made for the present survey. Only 15 are reproduced in the report. The rest are intended to be published in the form of dialect atlas.

Chapter IX provides a list of informants and other relevant information about them district-wise. In *chapter X* is given frequency list of items of the questionnaire. It is claimed that "The utility of the frequency list is amply borne out by its help in making preliminary hypothesis in dialect similarity and in map making (480)." But this assertion is vitiated by their findings with regard to the speech varieties spoken in Ernakulam and Kottayam which have the maximum score of 150 and yet belong to two different dialects. Thus higher frequency of lexical items shared by two or more geographical localities is no sure index of their belonging to the same speech variety. In this case more reliance has to be put on grammatical or structural features rather than lexical items.

On the basis of differences in phonological, grammatical lexical (and semantic) features in cognate items twelve major isogloss areas i. e. dialects and 32 sub-varieties of these have been indentified. Geographical boundaries of these are described in *Chapter XI*. The isogloss items for each are also listed there. 15 maps showing these areas are appended at the end of the volume. The dialect boundaries determined on the basis of linguistic features happen to coincide with political divisions. The author thus believes that "political divisions in Kerala were one of the contributing causes of the dialect differences (656)". This aspect of the question needs to be explored further. We have been accustomed to treating India as one cultural and linguistic area implying thereby that political boundaries did not stand in the way of communication between people living in different principalities. Cultural, religious, social and other activities were allowed to continue unhampered across political boundaries. Political kingdoms could not insulate their subjects. At least this does not appear to be borne out by history in northern India. Linguistic communication across political boundaries thus presumably was never disturbed. We shall like this aspect of the problem to be investigated into greater detail and depth. If the hypothesis presented here is upheld in case of Kerala it will have significant implications on the interpretation of its cultural, religious and social history of earlier times.

Chapter XII (689) lists major gains in the project.

Dialect Survey of Malayalam, a robust volume of a little over 700 pages, is a comprehensive and serious study attempted by a team of well-trained and competent linguists under the over all supervision of an able and devoted scholar, Professor V. I. Subromoniam. In planning the design of the survey the author has attended to all details. The volume thus serves as guide-book to those who intend to undertake similar surveys in their respective regions. A significant departure from the general run of such surveys may be noted. The whole plan is built around the speech variety of a social community called Ezhava/Tiyya which fortunately is found spread over the whole of the State of Kerala. This is good. But the reader will like to have some more information about the community its place in the social and cultural structure of the State. We need to be enlightened as to what considerations led to the choice of this community. Further one would also like to know how the speech of this community differs from that of other communities in the same locality. How far is the speech of Ezhava representative of a locality? Will the dialect and sub-dialect boundaries fixed on the authority of the specimens of their speech be confirmed by an investigation of the speech of some other community situated similarly? (See below).

Earlier work on Pulaya caste dialect (13) recognizes only five dialects on the main land. Survey of Ezhava community on the other hand identifies *twelve* major dialects (and *thirty-two* subvarieties) over the same geographical area. Since the details of Pulaya caste dialects are not given it is not possible to make a comparison of the two findings. Cochin dialect of Pulaya seems to cover the same geographical areas as covered by Cochin, North Travancore and part of South Malabar dialect of the Ezhava community. A comparison of distribution of linguistic features and castes and how these two are correlated, will be quite interesting.

Study of speech in its geographical spread is a complex task, a task that appears to be well nigh impossible to accomplish in its totality. "The diversity and heterogeneity of speech is simply bewildering. When we consider this constantly-in-flux-state of speech one feels completely unhinged and dismayed as to taking its study. Like a chameleon it appears to change its form every instant. How to grapple with a phenomenon that is so fickle and transitory? Where to start your study?" (Singh J. D : Study of language, Research Journal of Humanities and Arts, Kurukshetra University, Kurukshetra, 1975). Any factor from total environments in which is used may be responsible for variation in it. Space is one. Speakers are another and community of speakers is yet another. And so on. To understand this phenomenon in its totality is an impossibility. We have to make our choice. We can study it only in one of its numerous aspects. The author of the Survey opted out for the speech of Ezhava community which serves as a sort of constant against which is studied the ever-changing phenomenon of speech in its spread in space. It is a welcome departure. In this sense we would consider it a "new and systematic venture in the field of dialectology".

DESCRIPTIVE ANALYSIS OF TULU

by D. N. S. Bhat, Deccan College, Poona, 1967, pp. 117
Price Rs. 6.00

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Descriptive analysis of Tulu By D. N. S. Bhat is a part of his Ph. D. dissertation submitted to the Poona University. This is the first linguistic description of this language on modern principles. The analysis is presented in a very compact manner.

1. The section on Phonology describes in detail the phonemes and their allophones, clusters, syllable patterns. etc. The suprasegmental features like junctures, terminal contours have been just touched upon. The section on morphophonemic describes the types of elision, insertion, assimilation, and other changes taking place in the language. The section on morphology describes the formation of verbal and nominal forms in that order. Indeclinables have been mentioned in the classification of the vocabulary as a separate class. But no attempt is made to analyse them. The section on Syntax deals with the major sentence patterns and their analysis. Towards the end of the book a small text of seven sentences is presented with full analysis.

The description is of the Brahmin speech and the informants are highly educated. The vocabulary which followed the grammar portion is not printed in this book. It is said that an Etymological Dictionary for Tulu is under preparation: This compact description is very good. While appreciating the description in general let us turn to some of the details of analysis presented in this monograph.

2. Dr. Bhat describes five different allophones of /0/ in the initial position alone on page 3. But one and the same symbol is used in the examples given under statements 2 and 3. Because of this the difference existing between the allophones is not very clear. In fact the allophones described in statements 2 and 3 are seen to be the same.

/oli/ kind of leaf [wo[^] II]
 /oɖu/ 'iguan' [wo[^] ɖu]

On Page 8 though Dr. Bhat points out a distinction between the affricate j and stop j̥ in the transcription it is not indicated properly. It may be due to the difficulty in printing. Since Dr. Bhat himself says that the feature of aspiration in this language is very uncertain and may be due to this fact he has not consistently used this mark of aspiration in his phonetic transcription during the allophonic description given on page 7. On page 12 the statement that "All the four fricatives are short and only the phoneme /s/ shows a contrastive length (treated as geminate) occurring in a very few utterances". But we notice length in the case of the palatal fricative /ʃ/ as in /duʃʃaasane/ 'P. N.' On Page 9 Dr. Bhat mentions that the heavy aspirated stop is treated as a cluster and he gives some examples for these clusters on Page 25. But some more examples may be available to list in the three consonant clusters. We can note his own examples given on page 8 like /madhya/ 'middle' /mukhya/ 'important' etc. On Page 4 we notice the example barʃa 'rain' — but it is not mentioned in the cluster chart given on Page 16. In the cluster chart it is mentioned that the following clusters are possible, ɖr, (gm or gt) vɖ, yɖ. Examples should have been given for these also. In the list of examples the following combinations are mentioned to be possible. But these are not included in the chart.

ts, gɖ, ʃp, ʃy

3. In Morphophonemics on Page 35 the rule which states that generally when two vowels come together, if the first is a high back and short vowel (whether rounded or unrounded), it is elided, seems to be true in several cases. In the statement that follows he mentions that these two high back short vowels get elided when followed by a morpheme beginning with a consonant. But it is not true always. Consider the following examples.

| | | | |
|-------|---------------|-----------------------|------------------------------------|
| i + v | aɭi + vɛ | aɭivɛ | 'I will weep' (on page 2) |
| i + r | seer i + ri | seer i ri | /seeriri 'not joined' |
| i + t | daaɳt i + t i | daaɳt i t i | /daaɳtt i 'having crossed' |
| i + n | daaɳt i + n i | daaɳt i n i | /daaɳtn i 'it crossed' |
| i + l | badal i + la | badal i la badalla | /'make it change' |
| u + t | muɳtu + tu | muɳtutu | /muɳtu/ *muɳtu 'having touched' |
| u + y | oɭepu + ye | oɭette | /*oɭepye 'he called' |

In some cases the final rounded u, changes to ī which may also be noted.

muttu + r ī t ī mutt ī r ī t ī 'having covered'

In the case of the base muṭṭu + r ī t ī 'having touched' according to Dr. Bhat's statement it should be muṭṭr ī which is not true always. Some more constraints on this rule are necessary.

In rule 3 the u + i > u is not necessary. We notice examples of the following type.

| | | |
|---------------|-------------|---------------------|
| duḍḍu + iddi | duḍḍiddi | 'no money' |
| arv + iddi | aruyiddi | 'not teeth of saw' |
| buuḷu + itn ī | buuḷ ī tn ī | 'creeper was there' |
| duḍḍu + itnī | duḍḍ ī tn ī | 'money was there' |

If we notice the last two examples it seems that there is some kind of assimilation taking place when the final vowel of the following base is ī, the vowel in the preceding syllable is assimilated to ī, which would have been noted. In the same rule a + i > i does not seem to be true in several cases. The following examples may be noted. The elision of the final vowel of the preceding base is not very common.

| | | |
|-------------|----------|------------------|
| mara + itti | maraitti | 'tree which has' |
| mara + itna | maraitna | 'tree which is' |

In the case of dante + itti we have both the forms with or without elision of the final vowel of the first base.

dante + itti dantetti/dantitti 'that which does not'

On page 38 in rule 5 /a/ is dropped when preceded by the vowel /e/ also.

arjune + ańca > arjuneńca 'Arjuna thus'

But in the case of arjune + eńca > arjuneńca 'how Arjuna'

If this Sandhi takes place as per Dr. Bhat's rule it would be difficult to distinguish between the two constructions. Hence both should be available. The following examples may also be noted :

| | | |
|-------------|----------|--------------------|
| tare + ańca | tareańca | 'head like that' |
| akke + eńca | akkeńca | 'how elder sister' |

Rule 6 states that the vowel /a/ is dropped when preceded by /o/, /ε/ and /e/ and the vowel retained gets lengthened. Sometimes this rule is not true.

o + a eńcino + aaṇḍla eńcinoonḍla/eńcinaaṇḍla
'what ever it may be'

| | |
|-----------------------|---------------------------------------|
| ε + a śraddhε + aat ī | śraddhε : t ī 'interest that much' |
| e + a umbye + aat ī | umbyeet ī/umbyaat ī 'he that much' |

But we also notice that when umbye + eet ī 'he how much' also becomes umbyeetī in which case the distinction cannot be maintained. Under the changes taking place in consonants Dr. Bhat states that as the language does not allow geminated consonants directly before or after a consonant, one of the two identical consonants get elided whenever some suffix begins with a consonant. Cases of this type arise by the dropping of the vowels /ī/ and /u/ before consonants. This dropping of the vowels is not true, always.

| | | |
|------------|----------------|------------------|
| geppu + la | gepla/geppula | 'you take' |
| kaṭṭī + la | kaṭla/kaṭṭī la | 'you tie' |
| paṭṭī + rī | paṭrī/paṭṭī rī | 'you distribute' |
| baggī + nī | baggī n ī | 'it bent' |

In continuation of the statement regarding the consonant elision he states about the dropping of the phoneme /p/ before /t/. This does n't seem to be regular.

| | | | |
|-------------|---|----------|---------------------|
| kempu + ta | — | kempta | 'red one or of red' |
| madepu + ta | — | madeputa | 'of screen' |

While discussing about the insertion rules on page 39 Dr. Bhat mentions that the semi vowel -y- is inserted in the following environments. "In the case of internal Sandhi, if among the two juxtaposed vowels, the former is /i/ or /i:/, the palatal semivowel /y/ is inserted between them. Only /o/ or /a/ is found to occur as the following vowels. He further states that if the preceding consonant is /r/ in the above case, the inserted /y/ is retained but the vowel /i/ is dropped. Also he notes that it is inserted in Internal Sandhi when the base ends in /y/ and the following suffix begins in a vowel. But we notice this type of insertion in several other cases also.

| | | | |
|---------------|---|-------------|-------------------|
| gīlī + ee | — | gīliyee | 'O parrot' |
| tare + oro | — | tareyoro | 'head once' |
| kere + aṇca | — | kereyaṇca | 'tank thus' |
| bile + aavoḍu | — | bileyaavaḍu | 'price should be' |

Same definite rule is desirable to account for these examples.

In some cases both v and y can be inserted.

eg. kaḷe + oḍu — kaḷeyoḍu/kaḷevoḍu 'should lose'

In addition to the environments mentioned by Dr. Bhat regarding the insertion of /v/ it is noticed that /v/ is inserted in some other environments too.

aa + uuru aavuuru 'that village'

While discussing about the insertion of n, his statement that /n/ inserted when a noun or a plural form of a noun is followed by the pronominal form /aakɭu/ is not true. This insertion of n, is possible only with certain pronouns.

kudukker ī naakɭu 'foxes' (human beings who are cunning)
*naayi naakɭu 'dogs' is not possible.

We need to make modification in the rule that this /n/ is inserted only when it indicates persons.

The assimilation rules mentioned in the particular section on assimilation are incomplete. Some more rules are necessary to account for examples of the following type.

| | |
|------------------------------------|----------------|
| ampu + toɳu/ampu + oɳu — antoɳu | 'do oneself' |
| kuɭɭu + toɳu/kuɭɭu + oɳu — kuddoɳu | 'you sit' |
| paɳ + toɳu — paɳdoɳu | 'tell oneself' |
| tin + toɳu — tindoɳu | 'eat oneself' |
| patt ī + oɳu — pasoɳu | 'hold oneself' |

The initial voiced stop of a suffix gets devoiced when preceded by monosyllabic bases, is not found to be true always.

mii - miiɖr ī la 'bathe away'

On page 43 his statement regarding the emphatic morpheme /:/ (length) is contradictory when compared to his statement on page 40, where he mentions only short /e/. Instances of dropping syllables is noted here and there due to morphophonemic changes but not accounted for.

| | |
|------------------------------|----------------------|
| batt ī t ī + uppe > battuppe | 'he might have come' |
| avuɭu + t ī > aɭt ī | 'from there' |

4. In morphology while discussing about the reflexive marker on page 50 he states that "except bases ending in the suffix /pu/, all take /oɳu/ to form reflexive bases". It is followed by another statement that after bases ending in pu, it has the allomorph /toɳu/.

| | | |
|-------------------|-----------|---------------------|
| rakɕipu 'protect' | rakɕitonu | } 'protect oneself' |
| | rakɕisoɳu | |
| yoocipu 'think' | yoccisoɳu | } 'think oneself' |
| | yoocitonu | |

Some modification in the rule seems to be necessary to accommodate these so called free variants.

Similarly on Page 60 freely varying forms like the following may have to be accommodated.

| | | |
|---------|-------------|----------------|
| bartε | batt ī dε | 'I had come' |
| koṇorpε | koṇapε | 'I will bring' |
| koṇartε | koṇatt ī dε | 'I brought' |

While discussing about the negative markers on page 62 Dr. Bhat mentions that the negative suffix has (only) two allomorphs /-uri-/ and /-ury-/ the former occurring before the suffixes beginning with a vowel and the later occurring elsewhere. This statement needs modification because on page 53 in the verbal construction /koɭt ī dīr yarī/ 'you (pl) have not been given' /-īr-/ has been mentioned as a negative allomorph. Similarly on page 56 in the present negative form /-ay-/ seems to be the negative allomorph. Also on page 53 in the negative imperative we notice /-aɖ-/ as the negative allomorph, on page 56 in 3rd person neuter singular in the present negative we can segment /-a-/ as the allomorph and on page 66 it is possible to further segment /ootri/ into /-o:t-/ as the present assertive and /-ri/ as the negative allomorph. From the above exposition it seems necessary that the statement regarding the negative is incomplete and we should have a comprehensive statement regarding the negative suffix. In the following discussion on the historical implications of /-oḍu/ connected with the model verb form /-oḍu/ the negative form is given as /bootri/ 'don't want'. Hence it is certainly possible to segment /-ri/ as the negative allomorph.

Similarly on page 67 the reflexive allomorph is mentioned to be /-on-/ but on page 94 we notice /-o:n-/ also as an allomorph of reflexive. On the same page we find both forms i. e. /-on-/ as well as /-o:n-/. The same has the meaning of continuity.

| | |
|---------------------|---------------------------|
| eg. drupade lakontu | 'Drupada having got up' |
| keeṇo : ntitta | 'they were hearing' |
| boḷiyo : ntitn ī | 'it was milking' (PP. 93) |

On Page 85 rules regarding the occurrence of the vocative suffix need modification because of the following reasons: According to Dr. Bhat's statement the allomorph /a/ occurs after the base ending in /e/. But it is not true always. We find examples like,

basle 'child' not baala but baalee 'O child'

Similarly the allomorph /-e/ occurs after /i/ and /a/ is also not true. We find examples like the following:

ajji 'grand mother' ajjii 'O grand mother'

On page 39 while mentioning about the insertion of *n* it is stated that /*n*/ is inserted only after the *a* ending nouns needs modification because it is inserted in some other environments too.

| | |
|----------|----------------|
| tarenee | 'head itself' |
| kooponee | 'angry itself' |
| pudonee | 'dove itself' |

The statement that *ε* occurs after the bases ending in /*u*/ of the (C)VCV type needs modification. P. 85 has examples of the following type:

| | |
|--------------------|-------------|
| madu - maduu/madoo | 'O Madhu' |
| guru - guruu/guroo | 'O teacher' |

It may also be noted that they are only taking length. Possibly no suffix is added.

| | | |
|--------|-------------------|----------------|
| kuruḍi | kuruḍii/kuruḍiyee | 'O blind (Fem) |
| kamala | kamalaa | 'O kamala' |

On page 37 the allomorphic variations of the pronominal bases were presented in a tabular form. Under the ablative it is noted that all the forms are given with a geminated consonant. The next suffix which is to be added after this suffix is /-tī/ or /-tt ī/ cannot be added without any vowel in between them. The vowel /*a*/ which occurs between the base and the suffix is not accounted for.

Here and there we notice that certain base forms vary in their shapes but they have not been accounted by any allomorphic statements.

| | |
|--------------|------------------------|
| suttu ∼ sutu | to turn (PP. 46. 60) |
| nammo ∼ nama | we (incl) (PP. 15. 37) |

NOTE

‘MUST’ IN KANNADA

D. N. S. Bhat,

Poona

Certain Tamilologists believe it is rumoured, that anything that is true of Tamil must be true of other Dravidian languages as well. I am not claiming that Agesthialingom holds any such view, even though one of his recent articles (Agesthialingom 1972) makes one suspect that he does so perhaps unconsciously. The article under consideration is an interesting study of the use of *ve : n̄tum* ‘must’ in Tamil; its statements and generalizations are properly based on Tamil usages. However, when Agesthialingom generalizes further, namely that they are true of three other literary Dravidian languages as well (Malayalam, Kannada, and Telugu), he appears to be doing it simply on faith. At least the Kannada sentences quoted by him in support of those statements hardly support them.

One of his crucial arguments for upholding the claim that *ve : n̄tum* (and its equivalents in the other three Dravidian languages) must be considered as a verb is based on the fact that it could occur as a participial noun *ve : n̄tiya*, verbal participle *ve : n̄ti* and relative participle *ve : n̄tiya* (Page 13). He fails to notice, however, that the Kannada equivalent, *be : ku* does not show any of these forms. In (51), *be : ku* is followed by the participial form *a : da* of the verb *a : gu* ‘to become’; in (52), it is followed by the verbal participle *a : gi* of the same verb; and in (53), it is followed by the relative participle of the same verb.

He does note the distinction between Tamil *ve : n̄tum* and Kannada *be : ku* on page 21, where he finds that **ve : n̄tiyillai* is not possible in Tamil, but *be : ka : gilla* is possible in Kannada. However, he hardly attaches any importance to this finding.

Agesthialingom postulates (page 19) two underlying arguments for the modal *ve : n̄tum*, of which the second one is supposed to get elided when both of them are identical. The sentences given under

(75) are said to represent this deletion, whereas those given under (77) are said to represent the occurrence of two non-identical arguments, which are hence retained. However, the Kannada sentence given under (77) contains only one argument, namely *avanu*.

He derives sentence (50) from sentence (67) because, according to him, there is a paraphrase relationship between them. The Kannada sentences included in these are the following :

(50) na : nu ho : ga be : ku.

(67) na : nu ho : ga be : ka : gide.

Notice that (67) has two verbs following *be : ku*, namely *a : gu* and *iru*. However, the deep structure of (50) given on page 20 cannot take care of either of these sentences. It contains the root *iru* which is missing in (50), but does not contain the root *a : gu* which occurs in (67). Kannada, apparently, is not Tamil !

The modals *ve : n̄tum*, *be : ku* etc. are said to occur (page 25) in the form of relative participle with a head noun *te : vai*, *agatya*, etc. But the Kannada sentence quoted below (94) actually has *be : ku* followed by the relative participle of *a : gu* (*be : ka : da*), which is further followed by *agatya*. Once again, the structure of (94), given on page 26 cannot take care of the Kannada sentence.

It is suggested (page 27) that the negative sentences with *ve : n̄tum* (or its equivalents) could be grouped into two major classes: (i) those of (97) are formed by negativizing the whole sentence, and (ii) those of (98) and (99) are formed by negativizing the lower sentence (*na : n po :*) only. Rather strangely, however, the Kannada sentences given in (97) and (98) are exactly identical. (There is no Kannada sentence in (99)).

It is evident that Agesthialingom has wasted his efforts in giving Kannada equivalents to the Tamil sentences in this paper. He has yet to prove, if at all it could be proved, that *be : ku* has the status of a 'modal verb' in Kannada.

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